

1 DALE N. JOHNSON
2 MALCOLM C. McLELLAN
3 VAN NESS FELDMAN LLP
4 719 SECOND AVENUE, SUITE 1150
5 SEATTLE, WA 98126
6 T: 206-623-9372

7 UNITED STATES DISTRICT COURT
8 EASTERN DISTRICT OF WASHINGTON

9 BLOCKTREE PROPERTIES, LLC, a
10 Washington limited liability company;
11 CORSAIR INVESTMENTS WA, LLC,
12 a Washington limited liability company;
13 CYTLINE, LLC, a Delaware limited
14 liability company; 509 MINE, LLC, a
15 Washington limited liability company;
16 MIM INVESTORS, LLC, a Washington
17 limited liability company; MINERS
18 UNITED, LLC, a Washington limited
19 liability company; TELCO 214
20 WHOLESALE SOFTWARE, INC., a
21 Washington limited liability company;
22 MARK VARGAS, an individual; and,
23 WEHASH TECHNOLOGY, LLP, a
24 Washington limited liability company,

20 Plaintiffs,

21 vs.

22
23 PUBLIC UTILITY DISTRICT NO. 2
24 OF GRANT COUNTY,
25 WASHINGTON, a Washington

No. 2-18-cv-00390-RMP

DECLARATION OF KEVIN
NORDT IN SUPPORT OF
DEFENDANTS'
MEMORANDUM IN
OPPOSITION TO PLAINTIFFS'
MOTION FOR PRELIMINARY
INJUNCTION

DECLARATION OF KEVIN NORDT - 1

1 municipal corporation; TERRY
 2 BREWER, individually and in his
 3 official capacity; BOB BERND,
 4 individually and in his official capacity;
 5 DALE WALKER, individually and in
 6 his official capacity; TOM FLINT,
 7 individually and in his official capacity;
 8 LARRY SCHAAPMAN, individually
 9 and in his official capacity; and DOES
 10 1-10, managers and employees of Grant
 11 County PUD, individually and in their
 12 official capacities,

13 Defendants.

14 I, Kevin Nordt, under oath declare and state as follows:

15 1. I am over eighteen years of age, have personal knowledge of the
 16 matters herein, and am competent to testify regarding all matters set forth
 17 herein.

18 2. I am the Chief Executive Office and General Manager
 19 (“CEO/GM”) of Public Utility District No. 2 of Grant County (the
 20 “District”). I have worked at the District since 2007 and was appointed
 21 CEO/GM in June 2016.

22 3. In my capacity as CEO/GM I am responsible for overseeing all
 23 actions of District staff (“Staff”). I was actively involved in the development
 24 of Rate Schedule 17 (“RS 17”) and worked with Staff on our analysis,

25 DECLARATION OF KEVIN NORDT - 2

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
 Seattle, WA 98104
 (206) 623-9372

1 review, recommendations, and implementation of RS 17. Members of Staff
2 that worked on development of RS 17 include engineers, economists,
3 mathematicians, and customer service representatives.

4
5 **4. Rates.**

6 4.1. A public utility district sets the price of electricity that a
7 customer will be charged. This price is known as a “rate.” Electric power
8 rates are established by the Board of Commissioners (the “**Commission**”)
9 based upon the District’s costs to supply electric power, including costs of
10 generating, procuring, transmitting and distributing power. Transmission
11 lines distribute bulk high voltage energy whereas distribution lines deliver
12 electricity over a shorter distance such as throughout a neighborhood. The
13 District is required to set rates to provide sufficient revenues to cover
14 operating and capital costs, including the costs of necessary facility
15 expansions or upgrades.
16
17
18

19 4.2. Customers do not all pay the same rates for electric
20 power. Instead, they are organized into rate classes for different groups of
21 customers. For example, certain agricultural users are grouped together and
22 those with different electricity usage (such as the use of boilers) are grouped
23
24
25

DECLARATION OF KEVIN NORDT - 3

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 together. These different classes will pay a different rate. Currently, the
 2 District employs 13 different rate classes (excluding RS 17, which starts
 3 April 1, 2019).

4
 5 4.3. Prior to the establishment of RS 17, Plaintiffs were
 6 assigned to Rate Schedule 7 (“**RS 7**”). RS 7 is the large general service rate
 7 for customers who have between 200kW and 5,000kW in a billing demand.
 8 The rate schedule clearly reminds customers that rates can be changed at any
 9 time by the Commission. The rates charged under RS 7 are as follows:
 10

| 11 Basic Charge | Energy Charge | Demand Charge | Minimum Charge |
|-------------------|---|--------------------------------|----------------|
| 12 \$148.32/month | 13 <i>First 50,000kWh</i> 14 \$0.02100/kWh; 15 <i>All additional kWh</i> \$0.01875 | \$4.96 kW of Billing Demand | \$148.32 |

16 4.4. Attached hereto as **Exhibit 1** is a true and correct copy of
 17 the rates charged under RS 7.

18
 19 4.5. Basic charge is the base price a customer pays per month.
 20 The energy charge is based on how much energy (measured in kilowatt-
 21 hours) a customer uses. The demand charge is either: (1) the electrical
 22 demand listed in a contract; or (2), the highest 15 minute demand during a
 23 billing period which is determined by a special meter called a demand meter
 24
 25

DECLARATION OF KEVIN NORDT - 4

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
 Seattle, WA 98104
 (206) 623-9372

1 and adjusted to the 95 percent power factor. This is measured and charged
 2 per kilowatt. The minimum charge is the minimum amount a customer will
 3 be charged in a month.

4
 5 4.6. Rate Schedule 17-B charges for the year April 2019
 6 through March 2020 are as follows:

| Year | Basic Charge | Energy Charge | Demand Charge |
|---------------|--------------------|----------------|---------------------------------|
| April 1, 2019 | \$500.00 per month | .02219 per kWh | \$8.00 per kW of billing period |

11
 12 4.7. A billing period is a monthly period.

13 **5. Grant County Public Utility District.**

14
 15 5.1. The District generates electricity and serves the electric
 16 power needs of the residents of Grant County, Washington. Grant County is a
 17 rural agricultural community in north central Washington.

18
 19 5.2. The District is governed by a board of five commissioners
 20 that are elected by the residents of Grant County.

21
 22 5.3. Defendants Terry Brewer, Bob Bernd, Dale Walker, Tom
 23 Flint, and Larry Schaapman served as the elected commissioners when RS 17

24
 25 DECLARATION OF KEVIN NORDT - 5

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
 Seattle, WA 98104
 (206) 623-9372

1 was considered and adopted. Dale Walker, Tom Flint, and Larry Schaapman
2 continue to serve as Commissioners at this time.

3 5.4. Grant County is a rural agricultural community in north
4 central Washington. Its crops consist generally of corn, peas, potatoes, and
5 mint that are irrigated by water that is either pumped or diverted from the
6 Columbia River. Grant County has also attracted commercial and industrial
7 entities that require low cost power—silica (effectively specially heated,
8 ground sand) which is used to manufacture computer chips, carbon fiber
9 which is used to add strength to products, and data centers, buildings that
10 house racks of computers, including most recently unique data centers that
11 mine digital currencies or other tokens—the best known example is Bitcoin.
12 The District has a retail load of approximately 600 average megawatts
13 (MWa).

14 5.5. The District is obligated to serve the electric power
15 demands of its customers.
16

17 5.6. The District must engage in long-term planning.
18 District's current power supply capacity will be insufficient to serve the
19 expected load growth by 2024 (summer) and 2028 (winter). These
20
21
22
23
24
25

DECLARATION OF KEVIN NORDT - 6

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 assessments were made before the sudden growth in interest from new crypto
2 currency customers discussed below. Additionally, in order to continue to
3 serve its existing customers and future customers, the District must plan for
4 transmission and distribution upgrades and expansions into the future. Given
5 the long lead time for infrastructure projects, such planning must be done
6 without the benefit of firm commitments from customers or perfect
7 knowledge about future load. Moreover, network expansion costs are
8 incurred upon construction and recovered over many decades into the future.
9

11 **6. Unprecedented requests for new service by cryptocurrency**
12 **miners.**

13 6.1. During the summer of 2017, the District started to receive
14 an unprecedented number of requests for new service. Since the summer of
15 2017 to now, the District has received approximately 125 requests for service
16 which amounted cumulatively to over 2,000 MW of new load. By
17 comparison, the District's current energy load (the average amount of
18 electricity used by all the Districts retail customers) is about 600 MWa.
19 About seventy-five percent of these new service requests were from
20 cryptocurrency operations. The scale of this new demand for power and the
21 speed at which the new service requests appeared were unprecedented—both
22
23
24
25

DECLARATION OF KEVIN NORDT - 7

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 at the District and the industry. This type of load growth had not been
2 anticipated in its resource planning or financial projections. Importantly, the
3 District's rate structure and rates did not account for the types of new
4 infrastructure needed to serve this magnitude of new load. The District's
5 electric power rates were based on the historic costs incurred to build and
6 operate the system and projections that retail power demand would continue
7 without dramatic change. The District was concerned about how new
8 cryptocurrency demand could be satisfied by the District's power supply
9 resources and current infrastructure.
10
11
12

13 6.2. Due to the overwhelming number of requests, the District
14 also determined it was necessary to stand-down processing all new large
15 customer applications so as not to overload the system. District Staff then
16 created an alternative "expression of interest" queue to handle these new
17 customers.
18

19 6.3. In response to the influx of requests for service, I along
20 with Staff, came up with a four-pronged approach. First, we sought to
21 understand cryptocurrency and blockchain technology and markets in order
22 to project their needs for electrical service and in turn assess the impacts of
23
24
25

DECLARATION OF KEVIN NORDT - 8

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 such new loads, if any, on District operations and facility needs and on other
2 customers. Second, we modified the Facilities Cost Contribution (“FCC”)
3 process to assure adequate cost recovery associated with new or expanded
4 service. The FCC requires upfront payments for large customers but at the
5 time had not applied to RS 7. Third, we developed transmission and
6 distribution planning criteria to inform facility requirements and
7 configuration, and determine available transmission capacity on the high
8 voltage system. Lastly, we examined the existing rate structure to determine
9 if the current rate schedules and classifications were fair and equitable to all
10 of the District’s customers, and we developed a customer (class) risk
11 assessment methodology which was added to the Cost of Service Allocation
12 (“COSA”).

13
14
15
16
17 6.4. On October 24, 2017, we presented this four-pronged plan
18 to the Commission. We described what the cryptocurrency industry is and
19 their industrial power demand.

20
21 6.5. Attached hereto as **Exhibit 2** is a true and correct copy of
22 the presentation entitled Customer Service Requests. It is excerpted from the
23
24
25

DECLARATION OF KEVIN NORDT - 9

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 presentation materials from the October 24, 2017 Commission meeting. The
2 entire set of presentation materials is posted on the Commission website.

3 6.6. Digital currency miners/blockchain technology companies
4 are different than other District customers due to their questionable viability
5 as a novel industry, significant regulatory issues and their highly transitory
6 nature. Their load may be highly variable for three reasons. First, the
7 profitability of operations is very dependent on digital currency prices, so
8 rising digital currency prices can attract new entrants into the cryptocurrency
9 mining business and falling digital currency prices can cause existing
10 entrants to suspend or cease operations. Second, significant regulatory issues
11 associated with securities law, transparency and taxes could affect the
12 existence of the industry. Third, the operations can be moved from one
13 location to another at relatively low cost. Their operations consist of
14 application specific computers, space to house the computers, and electricity
15 to power the computers. The space can be as simple as a trailer, or one or
16 more rooms in a building. Electricity is their primary operating cost. Their
17 simple operating needs allow them to easily and quickly enter or exit a utility
18 market in response to changes in relative electricity prices.
19
20
21
22
23
24
25

DECLARATION OF KEVIN NORDT - 10

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 6.7. We determined that serving new cryptocurrency/
2 blockchain industry demand at the scale indicated by the service requests
3 received would require major power plant additions as well as significant
4 upgrades to the District's transmission and distribution systems. Significant
5 grid upgrades, such as the construction of power stations require significant
6 time to permit and construct, and are costly.
7

8
9 7. **Development of the Evolving Industry Class.**

10 7.1. Between October 2017 and April 2018, I directed Staff to
11 work on the four-pronged approach to address the influx of service requests.
12 Staff developed an internal memorandum dated April 17, 2018 (the "**White**
13 **Paper**"), which detailed our initial analysis and plans going forward.
14

15 7.2. On April 24, 2018, at the Commission Meeting and on
16 May 7, 2018, at the Evolving Industry workshop we presented to the
17 Commission our recommendation to establish a new Evolving Industry
18 ("**EI**") Customer Class.
19

20 7.3. The workshop was open to members of the public. Some
21 of the areas the workshop covered included: service model cost options,
22
23
24
25

DECLARATION OF KEVIN NORDT - 11

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 connection cost and policy, application process and fees, and specifically
2 how EI applications would be processed.

3 7.4. In the first instance, this classification was used to
4
5 prioritize processing of new service requests. In order to keep the influx of
6 cryptocurrency requests from bogging down the service interconnection
7 queue for other customers, other customer types received top priority in
8 design, engineering and construction. In other words, traditional customers in
9 the queue would be addressed prior to the EI class, as opposed to using a
10 first-in, first-out queue structure. This was consistent with internal policies
11 requiring that Core Customers (residential, irrigation, agricultural, etc.)
12 would maintain preferential access to power relative to Industrial customers.
13
14 Additionally, we presented our plan to develop a new EI rate schedule
15 consistent with District policies and based upon the COSA. During this open
16 public meeting, we presented potential screening criteria for determining EI
17 industries, which included: revenue significantly derived from an unproven
18 industry; unpredictability of rate revenue and power consumption; business
19 risk in the value of the customer's primary output; risk of detrimental
20
21
22
23
24
25

DECLARATION OF KEVIN NORDT - 12

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 changes to regulation; and significant load concentration in the District's
2 service territory.

3 7.5. The creation of the EI customer class was a response to
4 the unique challenges that the service requests from the cryptocurrency
5 industry posed but is not be limited to the cryptocurrency industry if other
6 industries met the criteria. The presentation described how cryptocurrency
7 would likely meet EI Class criteria. The presentation detailed the volatility of
8 bitcoin prices specifically.
9

10 7.6. Attached hereto as **Exhibit 3** is a true and correct copy of
11 the April 24, 2018, Presentation. It is excerpted from the presentation
12 materials from the April 24, 2018, Commission meeting. The entire set of
13 presentation materials is posted on the Commission website.
14

15 7.7. In our presentations we recommended a two queue
16 approach. When a potential customer fills out an application, if they are an EI
17 they are placed in one queue. If they are a traditional customer, they are
18 placed in another. The traditional customers are given priority over EI
19 customers. Therefore, a cryptocurrency miner needs to wait until all
20 traditional customers are satisfied, which in theory might never occur, but is
21
22
23
24
25

DECLARATION OF KEVIN NORDT - 13

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 highly unlikely. This was approved by the Commission when they adopted
2 RS 17 (discussed below).

3 7.8. At the workshop we discussed the potential criteria for the
4 EI rate class which included concentration risk, regulatory risk, and business
5 risk. Staff believed these would be effective criteria to capture the particular
6 risks posed by the cryptocurrency industry but also understood that other
7 industries could pose similar risks. We discussed how the cryptocurrency
8 industry would fall into the EI rate class in the first instance.
9

10
11 7.9. A copy of the presentations from the workshop is
12 available at ECF No. 32-1 at page 565-614.
13

14 7.10. Following, this and other analysis, on May 8, 2018, the
15 Commission passed Resolution 8885 directing Staff to develop the EI rate
16 class based on my and Staff's recommendation. After, the Commission
17 passed Resolution 8885, we then went finalize the criteria was for the EI
18 class and what the rate would be.
19
20

21 7.11. Attached hereto as **Exhibit 4** is a true and correct copy of
22 Resolution 8885.
23
24
25

DECLARATION OF KEVIN NORDT - 14

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 7.12. On June 26, 2018, we provided our EI Rate Class and
2 Rate Schedule presentation to the Commission. This presentation included a
3 description of the criteria for an industry to be considered an EI, including:
4

- 5 • Concentration Risk—Potential for significant load concentration
6 within Grant PUD's service territory resulting in a meaningful
7 aggregate impact and corresponding future risk to Grant's revenue
8 stream. Evaluation would begin to occur when industry
9 concentration of existing and service request queue customer loads
10 exceeds 5% of Grant PUD's total load.
- 11 • Regulatory Risk—Risk of detrimental changes to regulation with
12 the potential to render the industry inviable within a foreseeable
13 time horizon.
- 14 • Business Risk—Potential for cessation or significant reduction of
15 service due to a concentration of business risk, in an evolving or
16 unproven industry, in the value of the customer's primary output.

17 7.13. We recognized that over time an industry could be shown
18 to face less business or regulatory risk, or the concentration risk could fall
19 below the five percent threshold. Therefore, we recommended an annual
20 review of the EI Rate Class to determine if customers should be moved in or
21 out of the class. We again discussed how the cryptocurrency would meet the
22 criteria to be considered an EI in the first instance.

23 7.14. Attached hereto as **Exhibit 5** is a true and correct copy of
24 the June 26, 2018, presentation. It is excerpted from the presentation
25

DECLARATION OF KEVIN NORDT - 15

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 materials from the July 26, 2018 Commission meeting. The entire set of
2 presentation materials is posted on the Commission website.

3 7.15. In some respects, the development of the EI rate was
4 conservative. For instance, instead of basing the rate on a projection of
5 approximately 1,800 MW of new EI load, we based the pricing on 200 MW
6 of new EI customers taking service under RS 17. This resulted in lower
7 projected costs of needed transmission and distribution upgrades, and thus
8 lower rates. This also resulted in some significant power supply deficits—no
9 charge for “additional” power supply were included in the EI rate.
10

11 7.16. As stated above, the 5% threshold of the concentration
12 risk is defined as both the existing customer usage and the service request
13 queue. The existing customer usage and the service request queue for the
14 cryptocurrency industry exceeded the 5% threshold. In fact, it exceeded
15 100% of current system. Plaintiffs’ arguments about the projected load for a
16 given year does not include the service request queue.
17
18
19
20

21 **8. Plaintiffs actively participated in the public comment**
22 **process.**

23 8.1. Plaintiffs and other stakeholders provided extensive
24 comments throughout the processes that led to the Commission’s creation of
25

DECLARATION OF KEVIN NORDT - 16

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 the EI customer class and adoption of RS 17. During the June 26,
2 Commission meeting, Plaintiff, Cytline's representative spoke against the
3 proposed EI rate as did other members of the public engaged in
4 cryptocurrency mining, including Jonathan Toomin and Rhyan Reid. The
5 Commission engaged in discussion with these cryptocurrency miners and
6 directed Staff to provide additional discussion and options. The Commission
7 sought to strike a balance between protecting traditional customers and
8 fairness to existing cryptocurrency customers including Plaintiffs. A news
9 release published after the June 26, 2018 meeting explained that the District
10 was accepting comments on the new rate schedule, which could be made
11 either in person or via email.
12

13
14
15 8.2. On July 10, 2018, we presented to the Commission for
16 review to establish RS 17, the rate schedule under which EI customers would
17 be charged. Attached to the draft resolution were the White Paper, and a
18 memo dated June 20, 2018 (the "**June 20 memo**"). These documents detailed
19 our extensive analysis and rationale for these recommendations. Specifically,
20 the risks posed by evolving industries, how cryptocurrency should meet the
21 criteria of an EI, and our rate design. The proposed rates were the same as the
22
23
24
25

DECLARATION OF KEVIN NORDT - 17

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 ones presented at the June 26, 2018, Commission meeting. The Commission
2 also accepted public comments on the proposed resolution.

3 8.3. Attached hereto as **Exhibit 6** is a true and correct copy of
4 the June 20, 2018 Memorandum.
5

6 8.4. At the Commission meetings held on July 24, and August
7 14, 2018, the public continued to comment on RS 17. Comments were made
8 both in favor of and in opposition to the draft RS 17. Staff also had
9 individualized meetings with stakeholders, including many of Plaintiffs.
10 Regular updates were posted on the District website as well.
11

12 8.5. Attached hereto as **Exhibit 7** are true and correct copies
13 of excerpts of some comments received in opposition to RS 17.
14

15 8.6. After listening and reading the numerous public
16 comments regarding RS 17, on August 28, 2018, the Commission
17 unanimously voted to approve RS 17 through Resolution 8891, including a
18 decision that all cryptocurrency mining/blockchain technologies customers
19 are subject RS 17. At the August 28, 2018, Commission meeting, public
20 comments again addressed RS 17. Again we also discussed how
21 cryptocurrency would likely fall into the EI class. In an effort to address
22
23
24
25

DECLARATION OF KEVIN NORDT - 18

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 concerns about rate shock voiced by existing cryptocurrency customers, the
2 Commission decided to phase in rate increases over three years, and delayed
3 the initial effective date to April 1, 2019.

4
5 8.7. Attached hereto as Exhibit 8 is a true and correct copy of
6 an informational memorandum regarding the Commission's decision that
7 cryptocurrency was in the EI rate class.

8
9 8.8. Attached hereto as Exhibit 9 is a true and correct copy of
10 Resolution 8891 and the accompanying August 10, 2018, memorandum.

11
12 8.9. The difference between the rate charged under RS 7 and
13 the rate that will be charged to Plaintiffs under RS 17 as of April 1, 2019 is
14 approximately 31%. Because both rates are multi-part rates (i.e., there is a
15 monthly charge, a demand charge and an energy charge), the precise
16 percentage increase will depend on the energy and demand usage of the
17 particular customer.

18
19 8.10. RS 17 requires an annual review of the industries
20 included within the RS 17 class, applying the concentration risk, business
21 risk and regulatory risk factors set out in RS 17. The Staff will analyze
22 whether industries should be added to, or removed from, the EI rate class.
23
24
25

DECLARATION OF KEVIN NORDT - 19

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 Staff will also consider whether changes to the rates themselves are
2 appropriate. This analysis and any recommendations will be presented to the
3 Commission for action. Importantly, the inclusion of an industry with RS 17
4 is not intended to be permanent. As the District gains experience with the
5 industry subsequent actions may be taken by the Commission.
6

7 8.11. After the Commission adopted RS 17, the District
8 published a press release. That press release included statements from the
9 Commission explaining that cryptocurrency mining was “high risk” but they
10 do not view cryptocurrency miners as “villains,” and that they are different
11 than data centers because they only mine bitcoin. The Commission did not
12 have a specific animus towards cryptocurrency miners to drive them out of
13 the District but wanted to protect its other customers. The press release
14 appropriately noted that cryptocurrency miners would be in the EI rate class
15 as Staff had already conducted the analysis
16
17
18

19 **9. The Commission, not Staff, determines which industries are**
20 **covered by RS 17.**

21 9.1. It is the Commission that decides which industries are
22 covered by RS 17.
23
24
25

DECLARATION OF KEVIN NORDT - 20

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 9.2. The Commission decided, in the process that culminated
2 with the August adoption of RS 17, that cryptocurrency customers are
3 included in the EI rate class in the first instance.
4

5 9.3. On the basis of the annual review provided for in RS 17,
6 the Staff will analyze and the Commission will decide each year whether
7 industries should be added or removed from the EI rate class. The
8 procedures have not been fully finalized and approved by the Commission.
9 However, procedures under development include a review team comprised of
10 Staff, who will review members of the EI Rate Class and recommend if they
11 should be moved in or out of the class. I, and a team of management, will
12 review Staff's recommendation and provide necessary feedback. The
13 recommendation will be reviewed by the Commission. Additionally, we will
14 also review the risk premium to determine if there are any necessary changes,
15 which will also be approved by the Commission. If a customer is transferred
16 from one rate class to another, the Commission will be provided with an
17 informational memorandum. This is consistent with existing District policy.
18 The RS 17 procedures under development also contain an appeals process.
19 Any customer who wants to appeal the status of an industry's classification
20
21
22
23
24
25

DECLARATION OF KEVIN NORDT - 21

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 will meet with Staff who will provide a recommendation to the Commission.
2 The customer will have the opportunity to provide testimony to the
3 Commission. The Commission ultimately has the authority to accept or reject
4 Staff recommendation.
5

6 **10. Plaintiffs will provide refunds in the event that RS 17 is**
7 **vacated.**

8 10.1. On January 22, 2019, the Commission committed to
9 refund to RS 17 customers the difference between payments under the RS 17
10 rate and what payments would have been under the RS 7 rate in the event
11 that the RS 17 rate schedule is vacated as a result of this litigation. To
12 support such refunds, the Commission decided to retain, in a segregated
13 account, the difference between RS 7 and RS 17 rates paid by Plaintiffs
14 during the pendency of this litigation.
15
16

17 10.2. Attached hereto as **Exhibit 10** is a true and correct copy
18 of the minutes from the Commission Meeting on January 22, 2019.
19

20 10.3. I have reviewed the average amount Plaintiffs paid the District
21 for service in 2018 under RS 7. Using each of the companies' consumption in
22 2018, Staff calculated the annual charge under the first year of RS 17 (April
23
24
25

DECLARATION OF KEVIN NORDT - 22

**VanNess
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

1 1, 2019—March 31, 2020). The difference between charges under RS 7
2 (2018) and RS 17 (2019) is \$647,646.23.

3 10.4. Attached hereto as **Exhibit 11** is a true and correct copy
4 of an excel spreadsheet depicting the difference in amount between RS 7 and
5 RS 17.
6

7 **11. Clarifying some of Plaintiffs factual assertions.**

8
9 11.1. At no time did the District promise that rates for
10 cryptocurrency customers would remain unchanged. Moreover, each of the
11 District's rate schedules indicate that rates are subject to change by the
12 Commission. The Commission, as a matter of law, has the obligation and
13 authority to review rate classes and the rates charged within each class, and
14 to revise them as it finds to be appropriate.
15

16
17 I declare under penalty of perjury that the foregoing is true and correct.

18 Executed on this 28th day of February, 2019.
19

20
21 
22 Kevin Nordt
23
24
25

DECLARATION OF KEVIN NORDT - 23

**Van Ness
Feldman** LLP

719 Second Avenue, Suite 1150
Seattle, WA 98104
(206) 623-9372

Exhibit 1

Declaration of Kevin Nordt



Resolution No. 8879

RATE SCHEDULE No. 7
LARGE GENERAL SERVICE

AVAILABLE: To accounts with loads not less than 200 kW or more than 5,000 kW Billing Demand for general service lighting, heating and power requirements. **Service will NOT be provided under this rate schedule to process heating or boiler service loads greater than 3,000 kW unless such loads were served on this rate schedule prior to January 1, 2001. Such loads will be served on Rate Schedule 85 or its successor.**

EFFECTIVE: With meter readings on and after *April 1, 2018*, usage will be prorated to the new rates based on number of days after March 31, 2018.

MONTHLY BILLING RATE: Bills received by the customers will be based on the following:

| | |
|-----------------|--|
| Basic Charge: | \$ 148.32 per month |
| Energy Charge: | \$ 0.02100 per kWh for the first 50,000 kWh \$ 0.01857 per kWh for all additional kWh |
| Demand Charge: | \$ 4.96 per kW of Billing Demand |
| Minimum Charge: | \$ 148.32 per month |

BILLING DEMAND: The Billing Demand under this schedule shall be the larger of the following demand factors:

- (a) The contract demand, if any.
- (b) The highest 15-minute demand during the billing period as determined by demand meter. Metered demand will be adjusted up to 95 percent power factor on accounts having reactive meters.

TAX ADJUSTMENT: The amounts of any tax levied by any city or town, in accordance with RCW 54.28.070, of the Laws of the State of Washington, will be added to the above charges.

SERVICE: Subject to terms and conditions of the District's Customer Service Policies, as periodically amended.

Exhibit 2

Declaration of Kevin Nordt

[Excerpts from the October 24, 2017 Presentation Materials]

Customer Service Requests October 24, 2017



Powering our way of life.

Customer Service Requests

Grant PUD has received an unprecedented number of requests for new service

- Range from 3 to 100 MW
- Total completed applications approximately 500 MW, 85% of current average load.
- Additional 100 MW of interest, 20 inquiries in October alone.

| Waiting Que | Application Que | Agreement Que | Construction Que | Total |
|-------------|-----------------|---------------|------------------|-------|
| Up to 20 | 15 | 2 | 2 | 39 |
| 60 - 100 MW | ~ 400 MW | ~ 100 MW | 80 MW | 640 |

Raises infrastructure, rate design, and policy issues

Goal is to inform and prepare Commission for future discussion



Customer Service Requests

Today's discussion will focus on four areas:

- Infrastructure – Brent Bischoff
- FCC – new construction – Shane Lunderville
- Rate Design – Jeremy Nolan
- Example of new industry – Baxter Gillette

Customer Service Requests

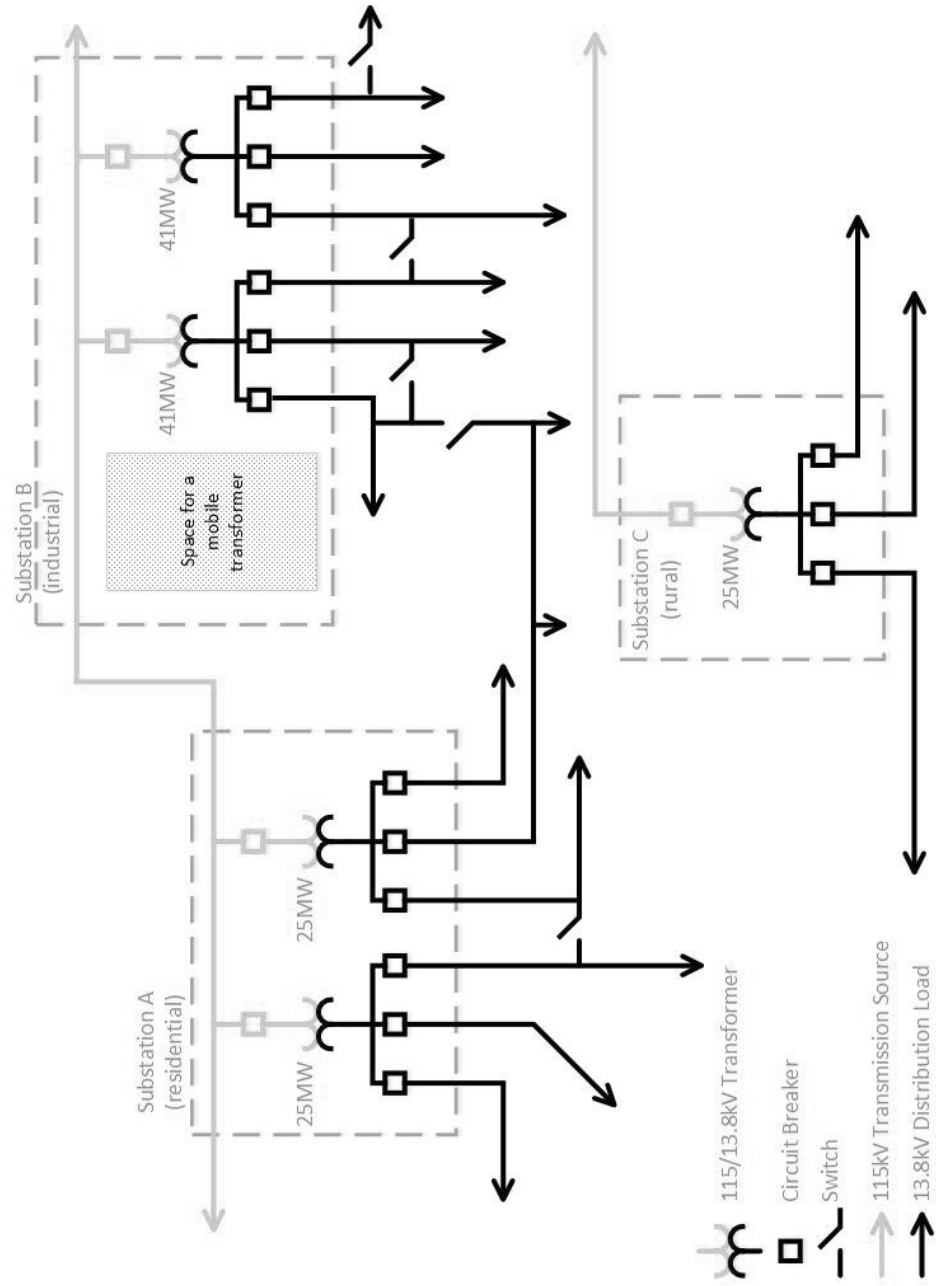
How well is the District T&D system positioned for continued load growth?

Distribution System Capacity

- Available distribution system capacity generally constrained by substation transformer size
- Growth is consuming available distribution capacity across the system, driven by rate structures and available capacity at sites
- Absence of a District power delivery system planning guideline
- Fully loaded substation transformer puts service reliability at risk (reduced ability to respond to outages) and limits continued growth
- Significant infrastructure improvements will be required for the District to meet continued load growth and retain system reliability

Available Substation Capacity Map

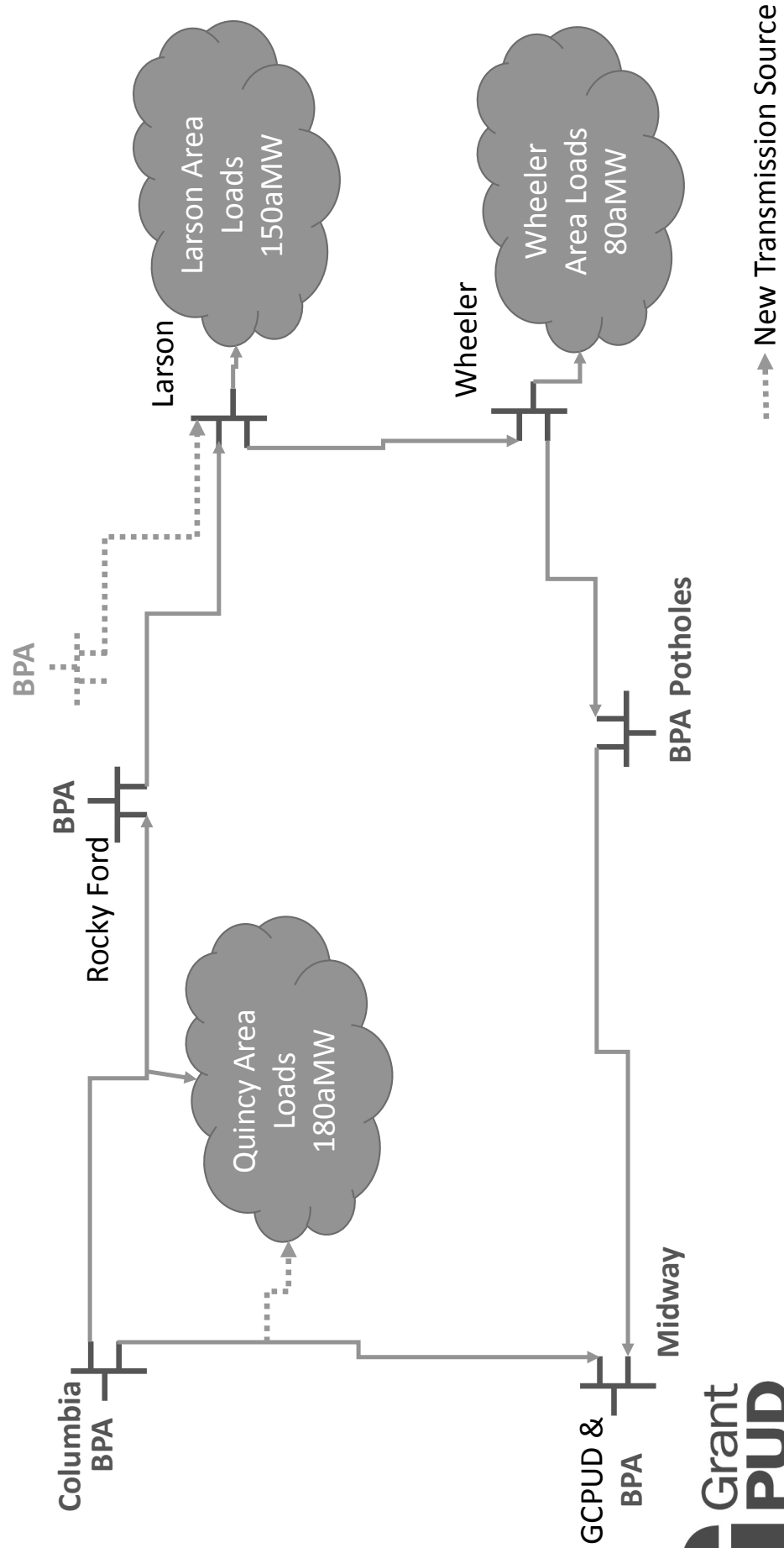
Distribution Network Example



Transmission System Capacity

- The unprecedented rate and magnitude of load growth will consume our available transmission capacity
- We are quickly approaching the point that we will require major transmission infrastructure upgrades
 - Second source into Quincy (4-5 Mile Transmission)
 - Third source into Moses Lake (15-21 Mile Transmission)

230kV Transmission System Overview



Concerns

- PD Engineering has not been able support this level of growth and accomplish the day-to-day work of operations, support of maintenance and life-cycle replacement, system long-range planning, compliance, process improvement, etc.
- Reliability for contingency situations as system capacity is consumed
- Power Delivery growth constraints – time to build infrastructure
 - Distribution – 6 to 18 months
 - Substation – 1.5 to 3 years
 - Transmission – 3 to 7+ years
- List of inquiries for industrial service beyond the 14 current applications being processed is growing rapidly

Processing the Queue and Next Steps

- Power system planning consultant is on board to run impact/feasibility studies for the applications in the queue
- Prioritize internal resources to complete current applications
- Engage with consultant to develop transmission and distribution system planning standards and long-range plans
- Review how we address unused “reserved” FCC capacity

FCC Process

Purpose

Keeping with our core values:

Recover costs to keep whole, promotes credibility

FCC Process Objectives

- Improve Facility Cost Contribution (FCC) to more closely align actual costs and charges
- Reduce undercompensated District staff time and resources in designing and coordinating work for customers where there is a low probability of attainment or projects that are eventually cancelled
- Implement a plan of service study to reduce changes in costs, scope and resources

Recommended Process Changes

- Review industrial process models at other utilities
- Create an Industrial Handbook for customers
- Develop Power Delivery study pricing that more accurately reflects calculated estimates, engineering planning, design and overheads
- Develop an application fee for customers requesting facilities
- Complete Plan of Service studies to scope project prior to Facility Cost Agreements
- Evaluate customer construction of infrastructure

Next Steps

- Look at industrial process models and determine what fits best for Grant PUD (FCC? Actual Cost?)
- Define policy and procedures for new industrial process
- Create application costs
- Finish Industrial Handbook, customer policy, and initiate new process
- Overall effort approximately 6 months and must be closely coordinated with infrastructure and rate efforts



Customer Service Requests

Rate Setting Policy, Cost of Service, and Rate Design

Rates and New Customer Requests

- Support development of FCC pricing
- Evaluate risks related to rapid and substantive load increase – both short run and long term costs
 - System infrastructure costs – localized and system-wide
 - Power Supply as load exceeds system resources
 - Impact on carbon content of portfolio
- Update COSA, consider new Rate Design, and update Rate Schedules (if appropriate) in a comprehensive manner that reflects Rate Policy and avoids unintended consequences between classes



Current and Projected Cost of Service

| Test Year | 2017 COS | |
|--|----------|--------|
| | 2017 | 2024 |
| Residential - Total (1) | -34.2% | -20.0% |
| General Service (2), (PA)&(PA St. Lghts) | -17.6% | -12.6% |
| Irrigation (3) | -45.3% | -20.0% |
| Street Lights (6) | -14.8% | 25.3% |
| Large General Service (7) | 11.4% | -12.5% |
| Industrial (14) | 3.3% | 14.6% |
| Large Industrial (15) & (94) | 37.9% | 15.0% |
| Agricultural Processing (16) | 6.4% | 10.9% |
| Agricultural Boiler (85) | -47.3% | -17.0% |

Next Steps

- Rate Setting Policy – definition and clarification of terms for implementation (Jan. to May 2018)
- Cost of Service update in 2018 (February to Nov. 2018)
- Rate Design Review in 2018 (February to Sept. 2018)



What is Blockchain and Cryptocurrency such as Bitcoin?



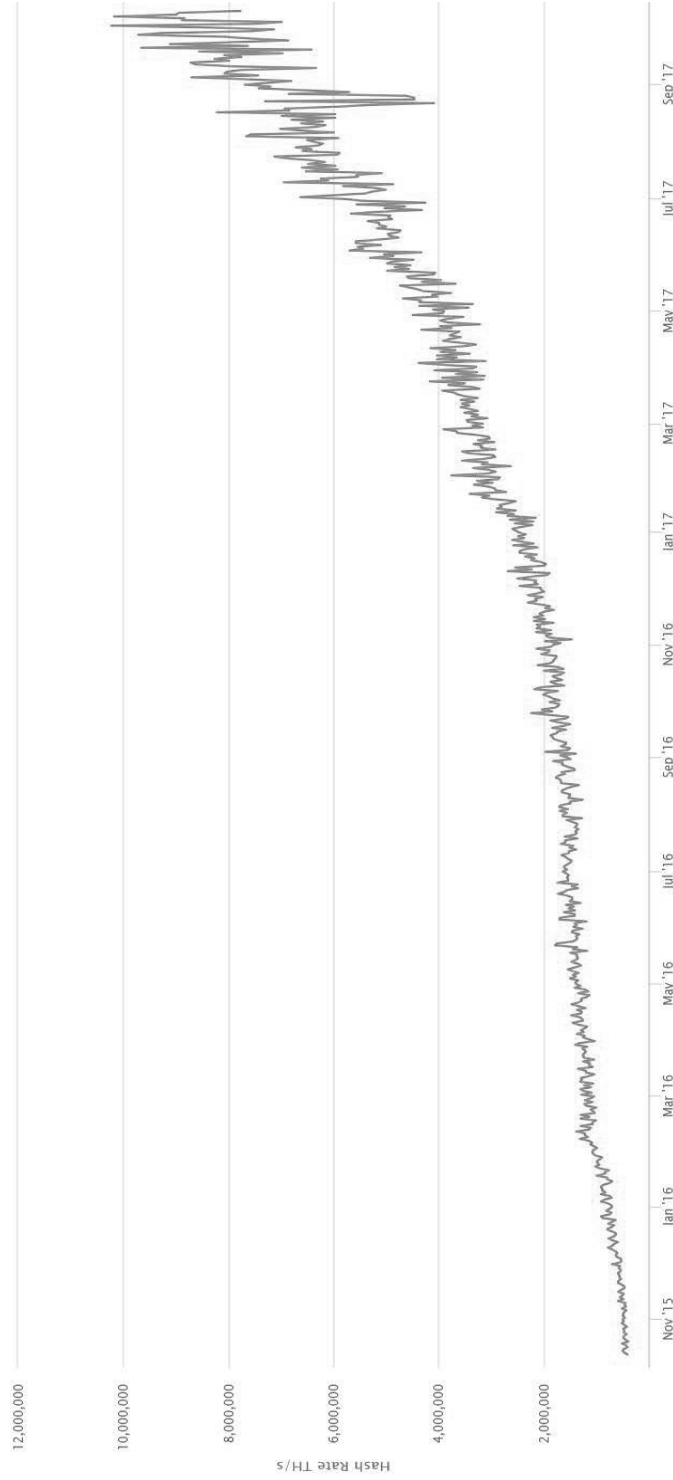
<https://www.youtube.com/watch?v=YIVAluSL9SU>

Let's Start with Bitcoin



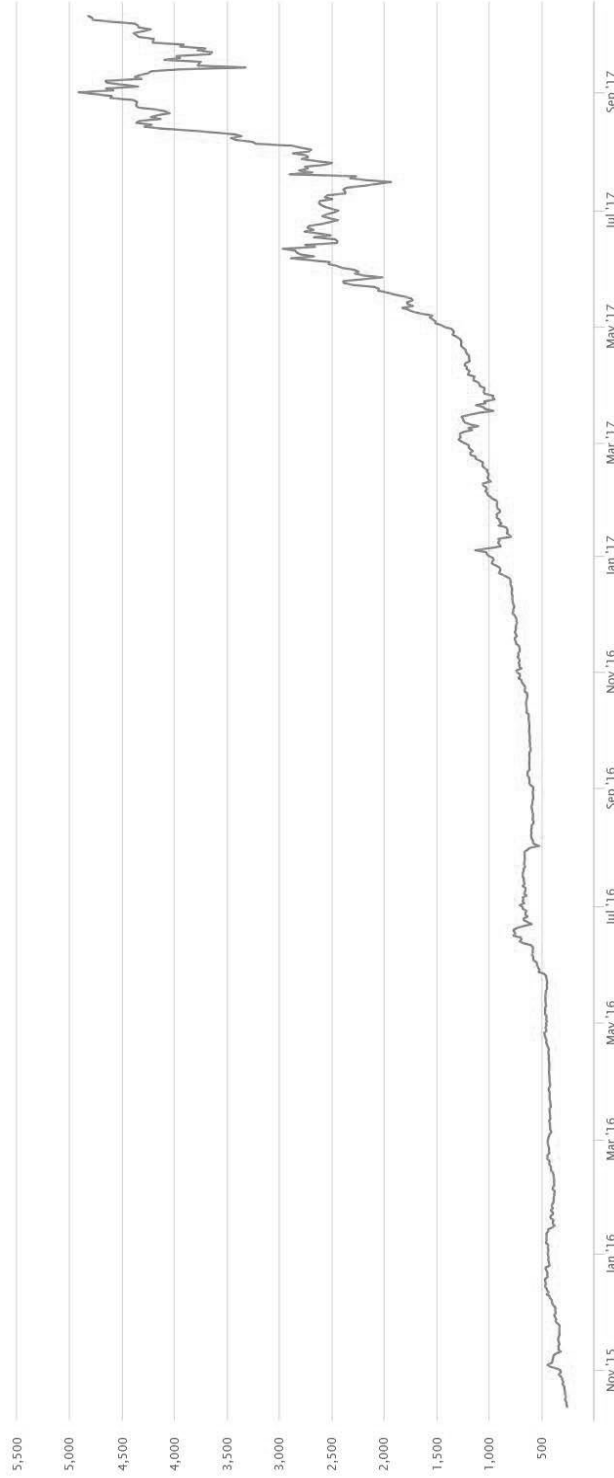
- Bitcoin is a digital currency or an investment or a protocol or a Ponzi scheme depending on who you are talking to
- Been in existence since 2009
- It uses the blockchain technology to achieve security and integrity
- The blockchain requires computational puzzle-solving (trial and error decryption)

Bitcoin is Transparent*



Source: <https://blockchain.info>

Bitcoin's Value is Volatile

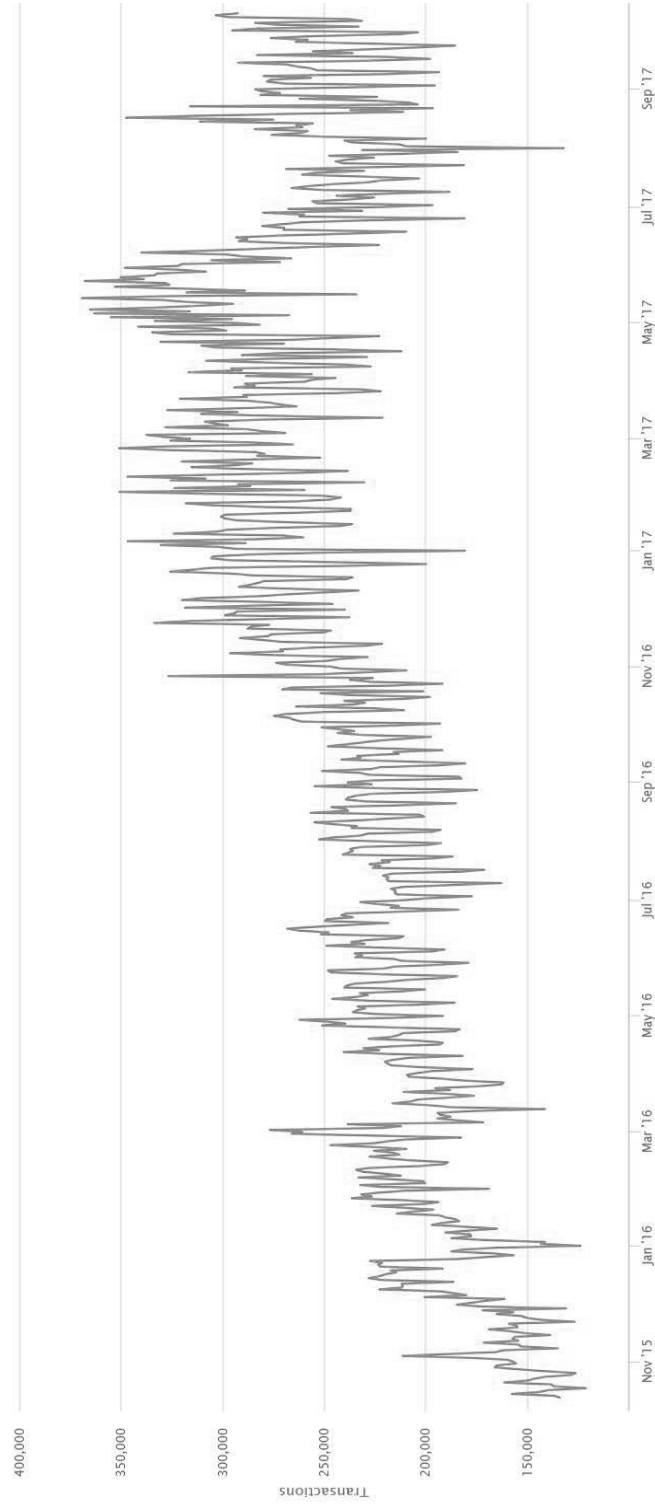


2009-2017 Range: \$0.06 to \$4748

Bitcoin is \$88B of the \$165B global Crypto Currency market Capitalization

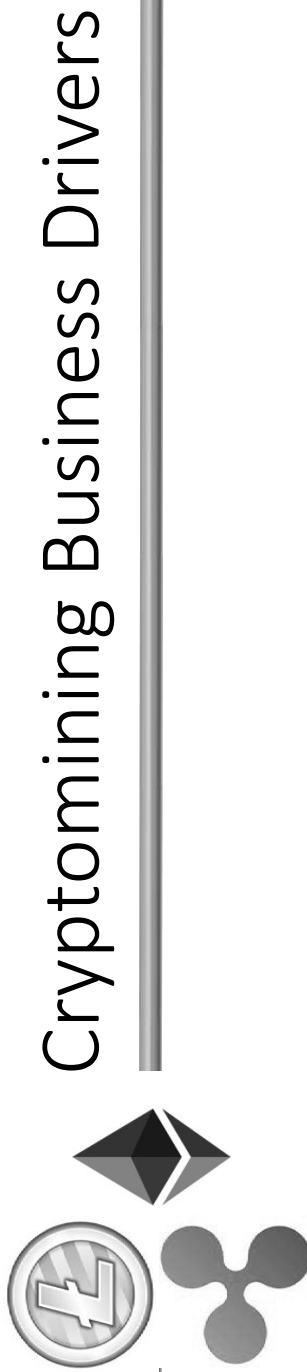


Bitcoin is Growing



200-300K transactions per day and growing
Trading \$800M / day = \$292B / yr.



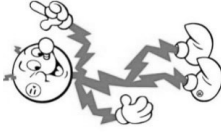


Cryptomining Business Drivers

- Hashing machine cost, access, efficiency and expected life
- Market price of cryptocurrencies and expected mining volumes
- Speed to site, connect and operate
 - Land Availability
 - Codes and Occupancy
 - Immediate Access to Utilities (Power & Water(?))
- Low up-front costs
 - Taxes
 - Contributions in Aid of Construction
 - Low Building Costs (may be a container box)
- Low Power costs
- Connectivity (communications bandwidth and proximity to nodes/other miners)
- Efficiency: Environment, Power Usage Effectiveness (PUE)
- Geopolitical Considerations and Risk
- Support Personnel
- Seismic and Flood Risks



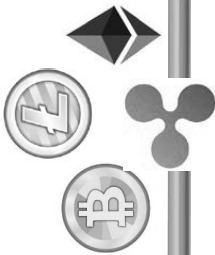
Cryptocurrencies and Power



| | Grant Large General Rate 7 | | Average Industrial US | |
|-------------------------|----------------------------|--------------|-----------------------|--------------|
| | October 2015 | October 2017 | October 2015 | October 2017 |
| Date | | | | |
| Network TH/s | 450,000 | 9,218,145 | 450,000 | 9,218,145 |
| GH/watt | 2.25 | 10.37 | 2.25 | 10.37 |
| Global MWH load | 200.2 | 888.9 | 200.2 | 888.9 |
| \$/kWh | \$ 0.0255 | \$ 0.0261 | \$ 0.0718 | \$ 0.0733 |
| \$/BTC | \$ 250 | \$ 5,280 | \$ 250 | \$ 5,280 |
| Energy % of Revenue | 14% | 5% | 38% | 15% |
| Scenario: \$/BTC | | | | |
| Energy % of Revenue | | | | |
| | | \$ 2,000 | \$ | 2,000 |
| | | 14% | | 40% |

Low power costs not only offer a gross margin advantage in current market conditions, but also allows miners to operate under lower price conditions and extends the useful life of their hashing machines





Grant and Cryptocurrencies

| Cryptocurrency Loads in Large General Service (Rate Class 7) | | | | |
|--|--------------|--------------|------------------|-----------------|
| | October 2015 | October 2017 | Half of Requests | All of Requests |
| Average Load (aMW) | 3.6 | 7.0 | 22.0 | 37.0 |
| Load Factor | 0.90 | 0.90 | 0.90 | 0.90 |
| Customers in Class | 6 | 10 | 15 | 20 |
| Estimated Total Annual Billings | \$ 803,847 | \$ 1,601,394 | \$ 5,069,925 | \$ 8,630,923 |
| Approximate Proportions of Rate Class 7 | | | | |
| Proportion of Load (in kWh) | 14% | 24% | 49% | 62% |
| Proportion of Revenue | 11% | 19% | 43% | 56% |

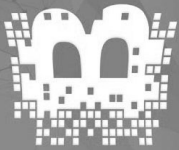
Cryptocurrency loads can change the nature of rate classes. In particular, they can affect Large General Service because of their high, industrial-like load factors, differing costs and risks, and growth trajectories that will increasingly dominate the class.



The Future of Bitcoin



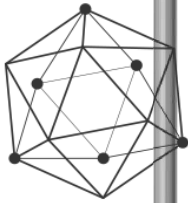
- Bitcoin is highly unlikely to survive in its current form
 - Market Rejections
 - Exploits
 - Scalability
 - Scandals & Scams (e.g. Mt. Gox)
 - Propaganda attack
 - Government Actions
 - Illegality
 - Terrorism, Human Trafficking, Narcotics, Child Porn, Tax Evasion, Money Laundering
 - Regulation
 - Substitutes
 - Competition
 - Usurping technology / Lower-Cost Algorithms & Protocols
 - Recovery of Private Keys
 - Destruction
 - Cyber-espionage
 - Quantum computing



The Blockchain will live on

- Banking
- Government Currencies
- Credit card transactions
- Exchanges
- Energy Transactions
- Credits (e.g. healthcare)
- Coupons
- Voting
- Intellectual Property
- Titles
- Notaries
- Internet of Things Tracking





HYPERLEDGER

- <https://www.hyperledger.org/members>
- <https://techcrunch.com/2017/08/22/ibm-costco-walmart-and-others-team-up-to-improve-food-safety-with-blockchains/>
- <https://www.computerworld.com.au/article/628648/>
- <http://www.datacenterknowledge.com/oracle/brings-blockchain-service-its-cloud>
- <https://azure.microsoft.com/en-us/solutions/blockchain/>

Project Plan – 2017 / 2018

- Ongoing intake of customer interest
- System Capability
- FCC Policy
- Rate Design



Exhibit 3

Declaration of Kevin Nordt

[Excerpts from the April 24, 2018 Presentation Materials]

Grant County PUD Evolving Industry

April 24, 2018



Powering our way of life.

Overview

- Issue
- Staff Recommendation
- Rationale for Recommendation
- Actions / Implementation Plan



Issue

Due to a limitation of electric service infrastructure and the long lead times to construct additional system capacity, Grant PUD must determine how to best meet the needs of an influx of customers requesting new large load service. Such customers require certainty in queue priority and facility connection schedules in order to invest in new and expanded production facilities.

Background

- Since early fall 2017
 - Approximately 125 requests for service
 - Over 2,000 MW
 - Approximately 75% inquiries
- 4 Workstreams
 - Evaluate Cryptocurrency industry risks and opportunities
 - Customer Interconnection Process
 - Transmission Criteria and Transmission System study
 - Rates – COSA and Rate Design

Staff Recommendation

- Create new customer class – Evolving Industry
 - Secondary priority of service design engineering & construction
 - Address all traditional customers in queue prior to Evolving Industry
 - Develop new rate consistent with existing rate policy described in Resolution 8768 and based upon COSA.

Legal Authority

- Legal Threshold
 - RCW 54.16.040
 - *full and exclusive authority to sell and regulate and control the use, distribution, rates, service, charges, and price thereof*

Rationale

Example of potential screening criteria:

- Primary revenue stream is significantly derived from an evolving or unproven industry.
- Long term rate revenue and/or power consumption is unpredictable, uncertain, or at risk of significant reduction when compared with other customer classes.
- Potential for cessation of service due to a concentration of business risk in the value of the customer's primary output, with the potential for facility abandonment.
- Risk of impactful detrimental changes in regulation with the potential to render the industry inviable within a foreseeable time horizon.
- Potential for significant industry load concentration within Grant PUD's service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant's revenue stream.



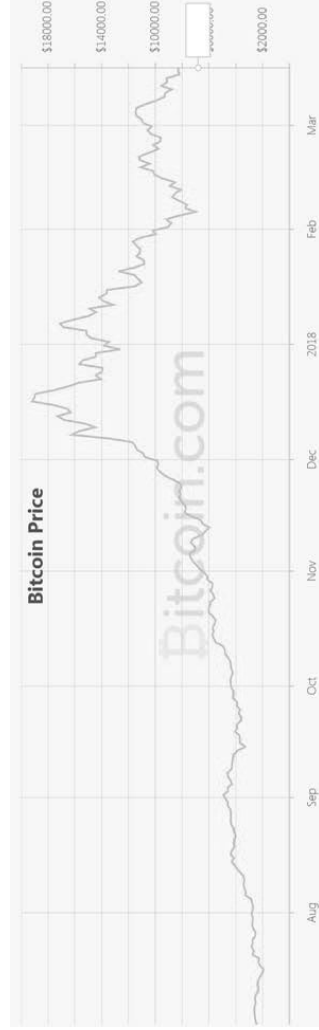
Other Approaches Considered

- First In – First Out
- Business Index
- High Density

Cryptocurrency Mining – Evolving Industry

Primary revenue stream is significantly derived from an evolving or unproven industry.

Long term rate revenue and/or power consumption is unpredictable, uncertain, or at risk of significant reduction when compared with other customer classes.



Cryptocurrency Mining – Evolving Industry

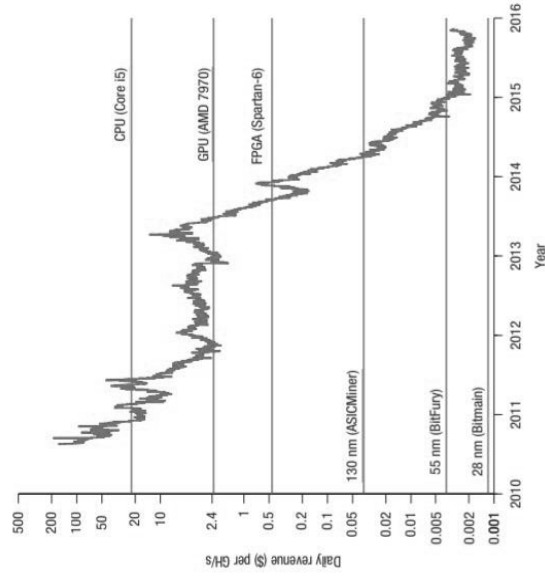
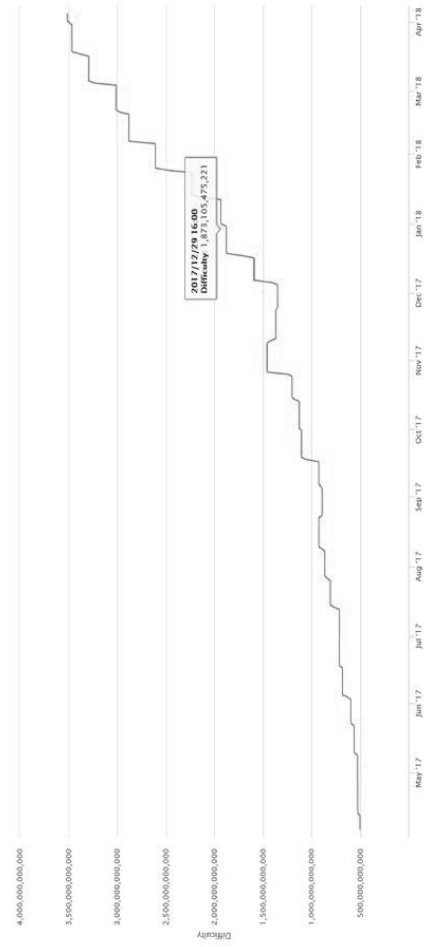


FIGURE 2. Daily Bitcoin revenue in dollars, per gigahash per second (GH/s) of mining performance, over time. The horizontal lines show the daily energy cost, at 20 cents/kWh, per GH/s of different hardware implementations as technology evolved. When mining revenue per GH/s drops below these costs, profits turn negative and the rig should be unplugged. After a GPU plateau, the system experienced a large-scale buildout of ASIC capacity, which dropped revenue per GH/s below the FPGA line and ultimately past all but the latest ASIC nodes.

Cryptocurrency Mining – Evolving Industry

Risk of impactful detrimental changes in regulation with the potential to render the industry inviable within a foreseeable time horizon.

Cryptocurrency Mining – Evolving Industry

Potential for significant industry load concentration within Grant PUD's service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant's revenue stream.

Over 90 requests for service and over 1,500 MW

Action Plan

- Immediate Adoption of a Commission Policy Position via resolution by May 8th, 2018.
- Public notification of new policy position once the Commission has determined that it supports moving in this direction. Customer outreach will begin once the Commission issues guidance on the new policy.
- Staff will finalize recommendations for the new Evolving Industry rate class classification criteria by the end of May.
- Staff will implement separate connection queues by July 1st, 2018.
- Commission will review recommended changes to Rate Resolution 8768 by June 15th, 2018 to ensure incorporation and consistency with the newly adopted customer class definition policy.
- Commission will approve Evolving Industry Class Rate 17 by June 30th.
- All known existing and all new Evolving Industry customers transition to the new Rate 17 by August 1st, 2018.



Questions



Exhibit 4

Declaration of Kevin Nordt

RESOLUTION NO. 8885


A RESOLUTION DIRECTING THE CREATION OF A NEW CUSTOMER CLASS FOR EVOLVING
INDUSTRY UTILIZING EMERGING TECHNOLOGIES AND OPERATING WITHIN THE GRANT
PUD SERVICE TERRITORY

Recitals

1. Pursuant to RCW 54.16.040, Grant PUD is authorized to regulate and control the use, distribution, rates, service, charges, and price of electric energy;
2. Potential or existing customers of Grant PUD are seeking service for businesses engaged in evolving industry;
3. Businesses engaged in evolving industry may utilize different load characteristics, have higher energy consumption, require transmission and distribution upgrades, require substation upgrades or expansion and carry risks to Grant PUD that are different from historical business uses under Rate Schedules 7, 14 or 15; and
4. The General Manager and Grant PUD staff recommend adopting a Grant PUD customer class for evolving industry which mitigates the risk to Grant PUD of serving businesses engaged in emerging technologies.

NOW, THEREFORE, BE IT RESOLVED by the Commission of Public Utility District No. 2 of Grant County, Washington that the General Manager and Grant PUD staff are directed to develop a new Grant PUD customer class for evolving industry for subsequent review and approval by the Commission.

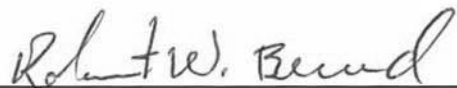
PASSED AND APPROVED by the Commission of Public Utility District No. 2 of Grant County, Washington, this 8th day of May, 2018.



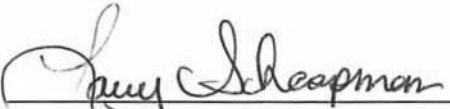
President

ATTEST:


Secretary



Vice President



Commissioner



Commissioner

Exhibit 5

Declaration of Kevin Nordt

[Excerpts from the June 26, 2018 Commission Meeting]

Rate Schedule No. 17 Evolving Industry Service June 26, 2018



Powering our way of life.

Agenda

- Evolving Industry (EI) Entrance and Exit criteria
- Rate calculation and components
- EI Risk detail
- Rate Schedule No. 17 structure
- Timeline

Evolving Industry - Entrance Criteria

To fall within the Evolving Industry Class an industry must have Concentration Risk (defined below) and at least one of the two other criteria below.

1. Regulatory Risk – Risk of detrimental changes to regulation with the potential to render the industry inviable within a foreseeable time horizon.
2. Business Risk – Potential for cessation or significant reduction of service due to a concentration of business risk, in an evolving or unproven industry, in the value of the customer’s primary output.
3. Concentration Risk – Potential for significant load concentration within Grant PUD’s service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant’s revenue stream. Evaluation would begin to occur when industry concentration of existing and service request queue customer loads exceeds 5% of Grant PUD’s total load.



Evolving Industry - Exit Criteria

No less than annually, Grant PUD will review the Evolving Industry Class to determine if it is appropriate for a customer's class to move into or out of the EI Rate Class.

1. Consistent with EI Class Entrance Criteria.
2. Determined by the Grant PUD team, at their discretion.
3. Estimated time is approximately 7 years after an industry has become widespread. Time period could be longer or shorter, at Grant PUD discretion.



Evolving Industry Rate Calculation Methodology

- Rate will be consistent with Grant PUD Rate Setting Policy and based upon:
 - Direct costs from the COSA,
 - Net Margin adder to set revenue recovery above the Class Cost to Serve, and
 - Risk Premium to ensure existing Grant PUD customers are protected from events caused by the EI Class.
- Evolving Industry Rate = (Direct Costs + Risk Premium) * (1+Net Margin)

Evolving Industry Rate Components

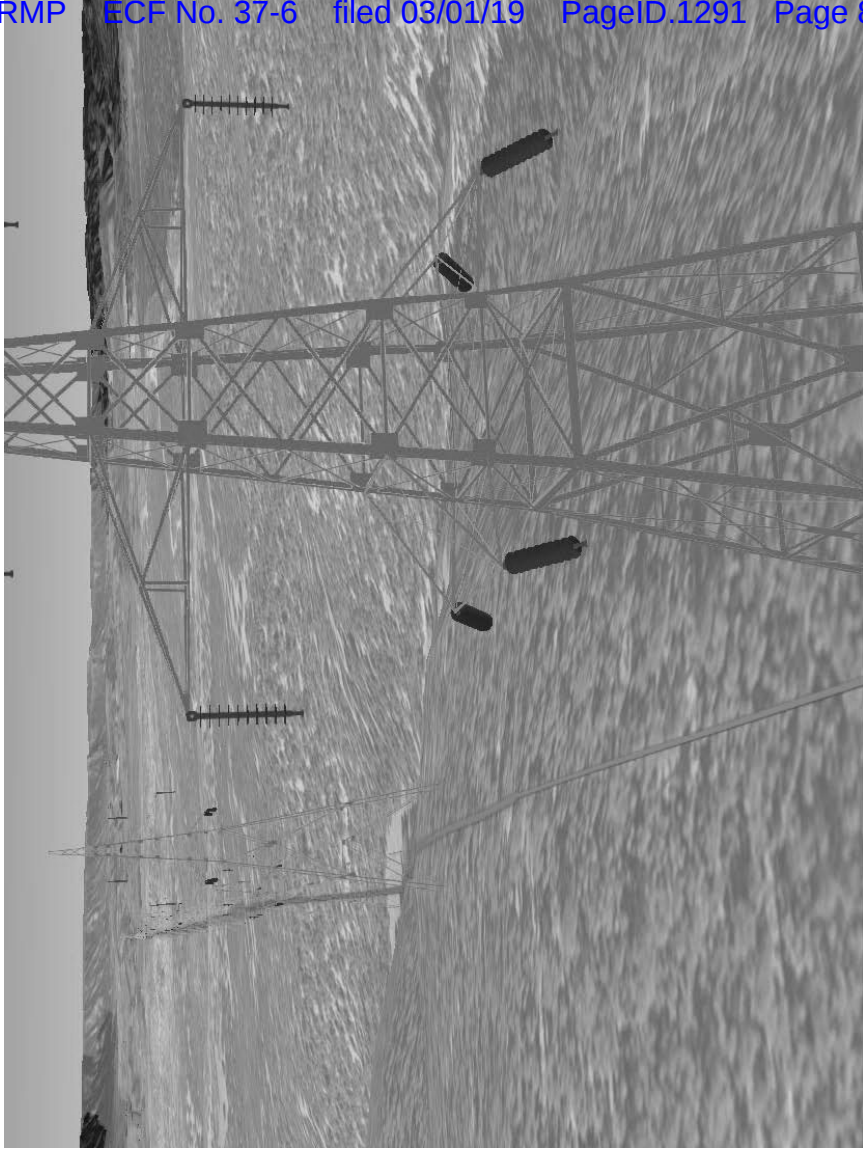
- Direct Cost Components – from COSA
 - Power supply
 - Transmission
 - Distribution
 - Customer
- Net Margin adder: Equal to 2018 forecast Rate 15 Net Margin
- Risk Premium:
 - Potential for accelerated transmission development
 - Potential for increased O&M costs on the distribution system
 - Annual Putback for early cessation of service



Risk Premium - Transmission

Potential Transmission Capacity Upgrade

- District planning calculations show system transmission exhibits significant violations several years earlier than current plan with increased Evolving Industry customers.
- Premium collected to defray estimated construction and planning costs due to deviating from current planning glide path.
- Ratemaking structure permits reset of calculation as better information about customer usage and transmission development becomes available in future years.



Risk Premium – Distribution O&M Adder

- Limited experience to date suggests increased wear, service calls and equipment replacement to be expected with certain industries qualifying for this rate class.
- This factor is 3 mills at current estimate.
- Framework provides capability to increase as future experience informs .



Risk Premium – Putback Option

- The District plans, budgets and makes consequential purchases to serve and administer loads of all classes.
- Given the concentrated and less stable nature of these customers, this feature covers some of the impact of many of them leaving within our short term planning horizon (one year).
- Framework provides capability to reprice as conditions change.



Rate Schedule No. 17 - Structure

Evolving Industry Service

17-A: For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

| | |
|----------------|-------------------|
| Basic Charge: | \$1.04 per day |
| Energy Charge: | \$0.13137 per kWh |

17-B: For retail customers with service of 200KW or greater Billing Demand.

| | |
|----------------|---------------------------------|
| Basic Charge: | \$1,000.00 per month |
| Energy Charge: | \$0.07097 per kWh |
| Demand Charge: | \$6.00 per kW of Billing Period |



Potential Rate Setting Policy and Rate Design Changes

Rate Setting Policy – Resolution 8768

- Current Preference access to Priest Rapids Project (PRP): Rate Schedules 1, 2, 3, and 7 along with the first 7,300,000 kWh per month (equivalent to 10 aMW). Individual customer load greater than 10 aMW will be the first off the PRP as system load grows.
- Potential Change: Define 3 groups. Core 1 as currently defined above. Core 2 as traditional customers' load greater than 10 aMW. Group 3 as Evolving Industry Rate Class.

Rate Design: A contract structure may be explored that would enable an individual Evolving Industry customer to provide up front risk mitigation that would alleviate the need for part or all of the ongoing risk premium applied under the proposed EI Rate Schedule.



Timeline – Transition Customers to El Rate Schedule

Estimated Timing:

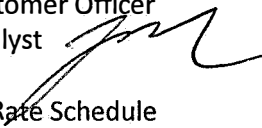
- June 26th: Rate Proposed to Commission
- June 26th – July 10th: Public Input
- July 10th: Request Commission take action on proposed Rate Schedule No. 17
- July 10th – October 1st: Bill Testing, Customer Notification
- Post October 1st: Existing customers migrated to Rate Schedule No. 17 at the first billing period after October 1st. (Note this may vary by customer.)

Exhibit 6

Declaration of Kevin Nordt

MEMORANDUM

June 20, 2018

TO: Kevin Nordt, General Manager
VIA: Dave Churchman, Chief Customer Officer
FROM: Jeremy Nolan, Financial Analyst 
Subject: Establish Evolving Industry Rate Schedule

I. Problem Statement

On May 8th, 2018, the Grant PUD Commission approved Resolution 8885 directing the creation of a new customer class for Evolving Industry (EI) customers operating within the Grant PUD service territory. In support of that resolution, Grant staff has prepared a rate schedule for the Evolving Industry customer class for Commission review.

II. Staff Recommendation

Staff proposes creating a new EI rate class definition, rate design, and pricing. Pricing terms are consistent with Grant PU D's existing rate class allocation policy as defined in Resolution 8768. The PUD has performed a cost of service analysis to determine the Rate Class Revenue Requirement similar to all the other retail rate classes it serves in Grant County and applied a positive Net Margin adder such that the new class rate targets will be set to provide economic benefit to core customers. Furthermore, Grant PUD has priced risk premia and unique cost factors, to mitigate the socialization of other potential impacts to existing, traditional customers.

In addition, staff proposes revisions to Grant PU D's Customer Service Policies to reflect the establishment of two customer connect queues – one for EI customers and one for traditional customers. All customers currently in the expression of interest queue will have an opportunity to submit an application for service at some point in the future. Within the EI queue, EI customers will receive connection facility design and construction attention in the new queue order based upon the date of expression of interest. The Evolving Industry customer class will receive a secondary priority of service relative to traditional customer classes for a plan of service, design engineering, and construction. Grant PUD will not process service requests in the EI rate class until it addresses all traditional customer applications, including those requests that are received after EI submittals, unless Grant PUD staff determine there are overall customer benefits such as clustering requests.

III. Discussion

Evolving Industry Rate Components

Criteria for inclusion in the EI Customer Class and exit from the EI Customer Class

Staff previously recommended the following criteria to determine if a customer fell within the EI Customer Class:

- Primary revenue stream is significantly derived from an evolving or unproven industry.

- Long term rate revenue and/or power consumption is unpredictable, uncertain, or at risk of significant reduction when compared with other customer classes.
- Potential for cessation of service due to a concentration of business risk in the value of the customer's primary output, with the potential for facility abandonment.
- Risk of impactful detrimental changes in regulation with the potential to render the industry inviable within a foreseeable time horizon.
- Potential for significant industry load concentration within Grant PUD's service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant's revenue stream.

After incorporating stakeholder input and reviewing internally, staff now recommends consolidating these criteria as follows:

- **Regulatory Risk** – Risk of detrimental changes to regulation with the potential to render the industry inviable within a foreseeable time horizon.
- **Business Risk** – Potential for cessation or significant reduction of service due to a concentration of business risk, in an evolving or unproven industry, in the value of the customer's primary output.
- **Concentration Risk** – Potential for significant load concentration within Grant PUD's service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant's revenue stream. Evaluation would begin to occur when industry concentration of existing and service request queue customer loads exceeds 5% of Grant PUD's total load.

No less than annually, a team composed of Grant PUD staff will review the EI Rate Class to determine if it is appropriate for a customer's industry to move into, or out of the EI Rate Class. The team will be composed of representatives from Large Customer Care, Customer Solutions, Engineering, Rates, and Finance/Accounting. To fall within the requirements of the EI Rate Class, an industry must have Concentration Risk and at least one of the other two criteria above. To make this determination staff will evaluate the following:

- **Regulatory Risk** - Based on pending State or Federal legislation, review of current potential for regulatory rulings from State or Federal agencies, feedback from investment banks.
- **Business Risk** - Based on trends in the price volatility of the industry's primary product over the previous 12 months, financial strength of market participants, and viability and competitiveness of industry. Staff will review the industry based in part upon Porter's Five Forces analysis which is used to assess competitive intensity and industry profitability. These five factors include: 1) Threat of new entrants, 2) Threat of substitutes, 3) Bargaining power of customers, 4) Bargaining power of suppliers, and 5) Industry Rivalry.
- **Concentration Risk** – Staff recommends basing this factor upon a concentration threshold of 5% of Grant PUD's load including existing customers as well as customers in the service request queue. Input from credit agencies will be considered when determining any future changes to concentration risk. A summary of current factors from rating agencies is summarized below:

Moody's

Moody's methodology elements that could be affected if a utility were to debt-fund assets to address Evolving Industry-driven demand include:

- Factor 1: assessment of the customer base including stability (25% scorecard rating)

- Factor 8: diversity and revenue stability, including customer concentration (a notching adjustment)

Moody's methodology is not likely to be formally modified to account for this specific situation, but their paraphrased thoughts are as follows:

- Demand for power is, in general, a good thing, however Evolving Industry customers are on the very high end of the customer risk spectrum. The industry is likely full of new businesses, the viability of which is unclear. Value of Evolving Industry products could fall quickly and dramatically. Evolving Industry businesses may be portable.
- Regulatory environment changes could have significant impact.
- Incurring debt to build out infrastructure investment for Evolving Industry customers could be considered credit negative.
- Baseline assumption is that utilities will take an approach that will be protective of current customers and credit quality.

Standard and Poors

For S&P, methodology elements that could be impacted include:

- Analysis of service area.

Fitch

For Fitch, methodology elements that could be impacted include:

- Customer profile and service area, including customer composition, business sector concentration.

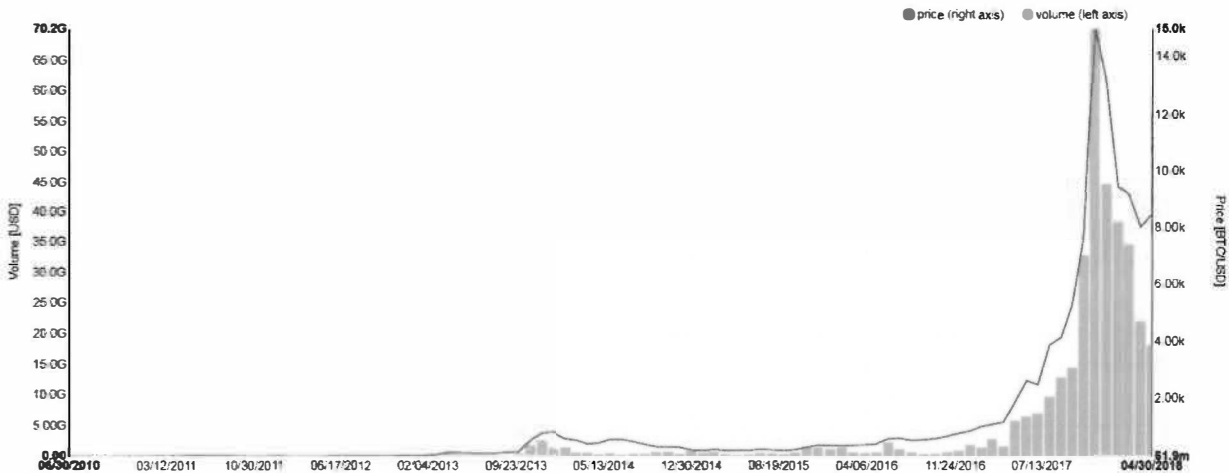
Investor Perspective

From an investor perspective, considerations are aligned with those of rating agencies: there is an expectation that utilities will take an approach to address additional demand that will be protective of current customers and credit quality.

The above factors do not include all potential data sources and analysis but are indicative of the type of research that will be used to make the Evolving Industry Class determination.

Exit from EI Rate Class

The above factors will be used to determine both entry into and exit from the EI Rate Class. In general, Grant PUD estimates a period of seven years after widespread development and expansion of the industry to move beyond the evolving state, although industries could advance more slowly or more quickly. In the case of crypto currency mining, while Satoshi Nakamoto released his paper in August 2008, trade activity was virtually nonexistent prior to 2013 and not widespread until 2017. (see chart below)



Risk Discussion

Power Supply Risk

El load growth creates two primary *power supply* risks that can be partially mitigated through rate setting policy and design. These two power supply risks are: 1) Consumption of existing resources as El customers increase load resulting in a need to procure new, potentially more expensive resources, and 2) the potential for El customers to leave Grant's system after "ratcheting" load.

Consumption of existing resource risk as El customers increase load: Grant has approximately 175 aMW of firm resources that are available for future load growth based upon the 2017 actual load. (Including exhausting the financial EUDL Ratchet.) The amount of requested load in the application and expression of interest queue is over ten times this quantity. Once the remaining resource is consumed Grant PUD will need to procure additional energy either from the market or a long-term resource or power purchase agreement (PPA). Under existing rate setting policy, customers with loads below 7,300,000 kWh per month (equivalent to 10 aMW) are granted preference access to Priest Rapids Project. A large increase in load resulting from a large influx of El customers taking service would exhaust existing power resources and result in a need to procure new power supply. The costs of any new power purchases would be allocated to large industrial customers' load in excess of 10 aMW resulting in higher power supply price volatility and likely higher rates for these customers. Without rate setting policy and rate design changes, new El load growth in excess of approximately 175 aMW will likely cause higher rates for traditional large Industrial (Rate 15) customers.

EUDL Ratchet Risk if El customers reduce load in the future: The Evolving Rate Class white paper showed that customers within the Evolving Industry rate class are anticipated to have greater load volatility than Grant PUD's traditional customers. This potential load volatility creates a high level of power supply risk related to Grant PUD's long term contracts.

When retail load increases, it increases Grant PUD's obligation under the Power Sales Contract to purchase additional energy permanently. That increased commitment to purchase power, known as the "ratchet", will remain if El customers leave Grant's power system resulting in surplus power. To the extent that the sale of this surplus results in a loss, these costs will be borne by remaining Grant PUD's

customers. This risk cannot be entirely eliminated without modifying the existing Priest Rapids Project Product Sales agreement, which is unlikely. However, it can be partially mitigated through the proposed risk premium in the EI rate.

Transmission Risk

When retail load increases it accelerates the need for high voltage transmission builds. This is the transmission infrastructure used to move power from generation to load or from utility interchange points to load. Normally, the cost of this transmission is recovered over the life of the asset, however rate recovery is less certain from customers in the EI rate class and therefore this risk is incorporated into the EI risk premium.

Distribution System Maintenance Risk

Increased usage of the current infrastructure is anticipated to result in lower life of existing infrastructure due to higher loading levels. Normally, the cost of this maintenance and replacement is recovered over the life of the asset, however rate recovery is less certain from customers in the EI rate class and therefore this risk is incorporated into the EI risk premium.

Revenue Risk

The Revenue Risk Recovery is the potential for loss of revenue after committing resources that could be stranded if a customer left. This includes the power supply risks mentioned above, incremental staffing added to serve higher load requirements, and incremental positive Net Margin that Grant PUD would potentially be relying upon.

Rate Design Discussion

Rate Design

The proposed Evolving Industry rate is comprised of two components - direct costs and a risk premium. The direct costs reflect the Rate Class Revenue Requirement needed to serve the EI rate class derived from the Cost of Service Analysis model (COSA). The direct costs are multiplied by the same by the same positive Net Margin adder that is currently applicable to Rate Class 15 in accordance with Resolution 8768. In 2018, that positive Net Margin is forecast to be approximately +31% and is anticipated to decrease over time until it reaches +15%.

The risk premium accounts for additional risks posed by the Evolving Industry Rate Class discussed above including stranded power supply cost, acceleration of high voltage transmission builds, future revenue loss, and reduction in effective life of infrastructure such as distribution transformers.

Direct costs to serve the EI Rate Class, like all other rate classes served by the District, include power supply, transmission and distribution functions, and customer costs. Power supply costs include the existing Grant PUD generating resources along with market purchases and sales as necessary. Transmission and distribution functions include high voltage lines necessary to move power from the source of supply over long distances to connect with a distribution substation. The distribution system then delivers power from the substation to the customer facility. Customer costs include functions such as metering, Large Customer Care, Customer Solutions, billing services, and conservation. Once Grant PUD's load grows to the point that it exceeds existing Grant resources, the power supply component will include a combination of existing resources and future resources and/or market purchases.

The Risk Premium is intended to estimate incremental financial risk that Grant PUD (and therefore its traditional customers) is exposed to through serving EI load; including acceleration of high voltage transmission, increased distribution infrastructure degradation, and lost revenue risk through hedging and ratchet costs. With the inclusion of the risk premium components, the total proposed rate is calculated as per the equation below:

$$\text{Rate} = [(\text{Direct Costs} + \text{TA}_{\text{adder}} + \text{DM}_{\text{adder}} + \text{RevRisk}_{\text{adder}})] * (1 + \text{NM}_{\text{adder}})$$

Where:

NM = Net Margin

TA = (high voltage) Transmission (development) acceleration

DM = Distribution system maintenance

RevRisk = revenue risk recovery

Rate Categories

Staff proposes establishing Rate Schedule 17, Evolving Industry Service. The rate schedule details establishment of two rates. Rate 17-A, which will provide service to retail customer that would otherwise be taking Residential Service (Rate Schedule 1) or General Service (Rate Schedule 2) less than 200 kW of Billing Demand. Rate 17-B would provide service to customers with greater than 200 kW Billing Demand, which would otherwise be served under existing Large General Service (Rate Schedule 7), Industrial (Rate Schedule 14), or Large Industrial (Rate Schedule 15). There are two primary reasons to create two separate EI rate classes – 1) current metering and billing limitations, and 2) Direct Cost differential when leads to a price disparity between the two rate categories.

1. Currently there is no metering mechanism in place to record customer demand in RS 1 and RS 2. In the future, additional capability will likely make demand billing in these rate schedules more practical. While there could be processes to address this, it would add increased staff time, labor costs, and complexity into the billing process and increase the likelihood of billing errors.
2. The all in, Direct Costs for RS 1 & 2 are similar (\$0.071 and \$0.055 / kWh, respectively) as are the Direct Cost of RS 7, 14, and 15 (\$0.031, \$0.028, and \$0.025 / kWh, respectively). The proposed EI rate for RS 1 & 2 would consist of a Basic Charge and kWh Charge. The proposed EI rate for RS 7, 14, 15 would consist of a Basic Charge, kWh Charge, and Demand Charge.

Customer Migration

All current customers that qualify for the EI Rate Class will be moved from their current rate class to the new EI Rate Class at the first billing period after October 1st.

Future Potential Rate Setting Policy and Rate Design

Rate Setting Policy

Staff will be reviewing Rate Design through 2018 and into 2019. As part of that process, there are potential changes to Rate Design and Rate Policy that staff anticipates bringing forward at that time as described below.

An approach to address the risk impact of rapid exhaustion of existing power supply on traditional customers is to exclude the EI Rate Class from the preference policy described in resolution 8768, so that once retail load grows to the point that Grant PUD requires additional resources, that the costs of that power is fully allocated to the EI Rate Class first. This is consistent with the current policy for Rate Schedule 15 customer loads in excess of 10 aMW. This would place the Evolving Industry as the first to be served based upon incremental power supply costs such as market purchases, prior to Rate Schedule 15 customers. This concept is similar to the logic applied in establishing the Evolving Industry rate class. Traditional customers maintain access to existing power resources, while the Evolving Industry will have access to existing power resources until this resource runs out. This construct provides the opportunity for EI customers to share in Grant PUD's low cost resources until supply runs out, at which point the EI Rate Class would bear the cost of the incremental power supply, whether that is market purchases, new generating resource, etc. This approach ensures that traditional customers' access to low cost embedded power supply, Priest Rapids Project, will not be negatively impacted by the Evolving Industry customer class.

For example, if the EI rate class load was equal to 300 aMW and there was 200 aMW of existing resource available for load growth, then approximately 200 aMW of load would be based upon existing resource prices, and 100 aMW would be based upon market/new resources. If load in other rate classes grew by 100 aMW, and the EI load did not increase, then the power supply cost in the EI rate class would be comprised of 100 aMW of existing resource price and 200 aMW of new resource/market purchases. However, if traditional class load did not increase but EI grew by 100 aMW to 400 aMW, the new ratio would be 200 aMW of existing resource and 200 aMW of new resource/market rates. These costs would be allocated by class so that all customers within the EI Rate Class would be allocated the same power supply cost.

Rate Design

In future Rate Design, a contract structure may be explored that would enable an individual EI customer to provide up front risk mitigation that would alleviate the need for part or all of the ongoing risk premium applied under the proposed EI Rate Schedule.

IV. Justification

Legal

The attached EI rate class white paper provided information regarding the right of Grant PUD to set rates for customers within each rate class. The proposal above is consistent with the rationale outlined in that paper. The proposed rates would be cost based, with both Direct Costs and Risk Premium Costs. After accounting for increased risks, this proposed rate structure provides access to embedded cost power consistent with all other customer classes.

Recently, the New York State Public Service Commission (PSC) has ruled that upstate power companies can charge bitcoin crypto currency miners, who may be trying to take advantage of the state's cheap electricity supply, higher electricity rates. The facts in New York are very similar to the issue for Grant PUD in which rates to existing customers are at risk due to new load growth forcing Grant to access additional supply from the market. (<https://www.utilitydive.com/news/munis-to-charge-bitcoin-miners-higher-power-prices-in-new-york/519275/>)

V. Suggested Timing

June 26th: EI Rate Class and Rate Schedule Proposed to Commission

June 26th – July 10th: Public Input (can be extended)

July 10th: Request that Commission takes action on proposed EI Rate Class (can be extended)

July 10th – October 1st: Bill Testing, Customer Notification

Post October 1st: Existing EI customers' migrated to new rate at the first billing period after October 1st.
(Note this may vary by customer)

VI. Recommendation

To adopt via resolution the attached Rate Schedule 17 as proposed which establishes a separate Rate Class to provide service to the Evolving Industry as defined in the discussion above.

Exhibit 7

Declaration of Kevin Nordt

[Excerpts of some comments received in
opposition to RS 17]

ATTORNEYS AT LAW

RICHARD C. FELTMAN ♦♦

FRANK J. GEBHARDT *

DAVID E. EASH *

JOHN R. ZEIMANTZ *

ROBERT F. GREER ♦♦

BRAD E. SMITH *

MARLA CAREY HOSKINS *

J PATRICK DIENER *

KENT NEIL DOLL, JR. *

KILEY J. ANDERSON

THOMAS ROHRER



FELTMAN | EWING

1600 PAULSEN CENTER • 421 WEST RIVERSIDE AVENUE, SPOKANE, WA 99201-0495
509.838.6800 • FAX 509.744.3436 • FELTMANEWING.COM

EXPERIENCED LAWYERS • PROVEN RESULTS

OF COUNSEL

JOSEPH NAPPI, JR.

H. DOUGLAS SPRUANCE III ♦♦

ALL LICENSED IN WA

* LICENSED IN ID

♦ LICENSED IN CA

♦ LICENSED IN IL

* LICENSED IN PA

July 3, 2018

Grant County PUD
PO Box 878
Ephrata, WA 98823

Re: Emerging Industries Rate Class Proposal

Dear Grant County PUD Commissioners:

I represent Cognitech, Inc., one of the local Bitcoin miners in your PUD district. Cognitech recently moved to Moses Lake a few years ago, in large part due to the reliable and cheap electricity.

For these first several years of its start-up stage, Cognitech has been paying \$5,000+/mo. for electricity from the Grant Co. PUD. It has always paid on time. Cognitech was recently shocked to learn about the proposed "Emerging Industries" rate plan, which would approximately triple its electricity bill. That would cripple its business and would force it to cease operations immediately. All the hard work and investment Cognitech made would be gone overnight. It is doubtful that any businesses, considered by the PUD to be "safer" industries, would survive such hike.

Cognitech anticipates one of its principals will testify at the upcoming public hearing. The following is a summary of Cognitech's position that will be presented at the hearing:

Cognitech believes the commissioners are misinformed about our business, and should disapprove the new rate classification:

- a. The PUD accepted inquires for new connections (such as Cognitech's), which accepted quotes for electricity usage without any deposit or financial commitment. Cognitech would not have located in Grant County under the proposed rate classification, and strongly believes that very few of those new demand requests would choose to locate in Grant County today (even with the current electricity rates, virtually **none** at the proposed new rate).
- b. The current inquires (which is believed to have precipitated the PUD's proposed new rate classification for "evolving industries") have come at a time when Bitcoin increased in value almost monthly. That resulted in unrealistic expectations and "get rich quick" business plans, which resulted in a huge number of new inquires at the PUD.
- c. Bitcoin mining is legal and not some shady operation that should cause concern for the Grant County PUD. Cognitech should not be put into the same category as these other businesses the media is

Hand delivered
during 7/10/18
Commission mtg.

CH& CAIRNCROSS & HEMPELMANN
ATTORNEYS AT LAW

524 2nd Ave., Suite 500
Seattle, WA 98104
www.cairncross.com

office 206.587.0700
fax 206.587.2308

July 10, 2018

VIA EMAIL; ORIGINALS HAND-DELIVERED

Board of Commissioners
Grant County PUD
PO Box 878
Ephrata, WA 98823

Re: Comments Opposing Proposed "Evolving Industries" Rate Schedule 17

Dear Commissioners Brewer, Bernd, Walker, Flint and Schaapman:

On behalf of Cytline, LLC, MMI Investors, LLC, and 509Miners, LLC, I am submitting the attached comments opposing Grant County PUD's proposed "Evolving Industries" rate schedule. Thank you for your careful consideration of these comments and the serious concerns reflected in the comments about the proposed rate schedule.

Sincerely,



Eric Lee Christensen
Cytline, LLC, MMI Investors, LLC, and 509Miners, LLC

Orlene Hahn

From: Michael Ages <michael@fortressblockchain.io>
Sent: Monday, August 13, 2018 1:28 PM
To: Randalynn Hovland; Dave Churchman; Diane Chestnut; Orlene Hahn; Kevin Nordt
Cc: 'Eric'; 'Brian Snyder'; 'Steve Wood'; 'Aydin Kilic'; 'Paul Lum'
Subject: [possible spam] Proposal for Accommodations from Alliance of Grant County Emerging Industry Customers
Attachments: Proposal for accommodations for existing emerging industry users.pdf

Please take care when opening links, attachments or responding to this email as it originated outside of Grant.

Hello Randi and Orlene,

Please find attached a detailed proposal for accommodations from the Alliance of Grant County Emerging Industry customers. Can you please forward to the commissioners and staff.

Thanks very much and best regards,

Michael Ages
CTO
C: 604-375-3214

Please Visit [The Fortress Institute](#)



FORTRESS BLOCKCHAIN CORP.

This email may contain confidential and privileged material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. If you have received this communication in error, please notify the sender immediately by email and delete the message and any file attachments from your computer.

**CH& CAIRNCROSS & HEMPELMANN
ATTORNEYS AT LAW**

524 2nd Ave., Suite 500
Seattle, WA 98104
www.cairncross.com

office 206.587.0700
fax 206.587.2308

July 10, 2018

VIA EMAIL; ORIGINALS HAND-DELIVERED

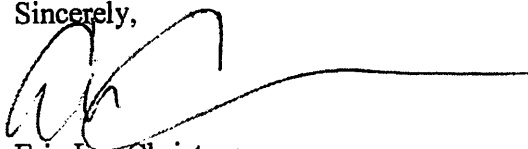
Elected Commissioners
Grant County PUD
PO Box 878
Ephrata, WA 98823

Re: Comments Opposing Proposed "Evolving Industries" Rate Schedule 17

Dear Commissioners Brewer, Bernd, Walker, Flint and Schaapman:

On behalf of Telco 214 Wholesale Software, Inc., I am submitting the attached comments opposing Grant County PUD's proposed "Evolving Industries" rate schedule. Thank you for your careful consideration of these comments and Telco 214's concerns about the proposed rate schedule.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric Lee Christensen', with a long horizontal line extending to the right.

Eric Lee Christensen
Attorney for Telco 214 Wholesale Software, Inc.

From: Commissioners
Sent: Thursday, August 16, 2018 8:01 AM
To: Bob Bernd; Bob Bernd (bnsbernd@gmail.com); Dale Walker; Dale Walker; Larry Schaapman; Terry Brewer; Thomas Flint; tom1flint@gmail.com; Dave Churchman; Jeffrey Bishop; Kevin Marshall; Kevin Nordt; Mitchell Delabarre; Randalynn Hovland; Tony Webb
Subject: FW: Errors in Rate 17 risk analysis
Attachments: signature.asc

FYI – this is the email that Kevin responded to last night.

From: Jonathan Toomim [<mailto:j@toom.im>]
Sent: Wednesday, August 15, 2018 6:56 PM
To: Commissioners <Commissioners@gcpud.org>
Cc: Dave Churchman <Dchurchman@gcpud.org>; Kevin Nordt <Knordt@gcpud.org>
Subject: Errors in Rate 17 risk analysis

Please take care when opening links, attachments or responding to this email as it originated outside of Grant.

Commissioners,

Although I mentioned this in my proposal document, I suspect it may have been overlooked due to the sheer size of the document, so I would like to repeat it here.

There is at least one major error in the risk analysis calculations that were used to derive Rate 17.

I personally believe there are two serious errors and a few other smaller issues, but I'm only absolutely certain that one of them is unquestionably an error. The second error I'm only 90% certain of.

I know exactly where in the spreadsheet these errors occur, and I know how to fix them.

The first error can be detected by dimensional analysis -- i.e., keeping careful track of the units in your calculations. It isn't a question of definitions or motivations or anything like that. It's merely an issue that the final number that the spreadsheet calculates does not have the units "\$ per MWh of EI customer load", and yet it is being added to other quantities that do have those units.

In order to correct this error, the calculation needs to apply a conversion factor to make it a "\$/MWh of EI customer load" value. With the values and assumptions used in this spreadsheet, that conversion factor would be 1/30. In other words, **the current spreadsheet overcharges for transmission costs by 30x**. This one error alone changes the final price for Rate 17B by \$23.70/MWh. With this error corrected, the rate would drop from \$81/MWh to \$48.10/MWh. **This error alone causes a 67% overcharging on the all-in energy price.**

The second error is in the Revenue Risk calculation. It is less clear-cut, and also not as large in magnitude, but it causes the actual CoS margin to exceed the specified value. If the CoS margin were set to 0% (and the previous error were fixed), then the computed customer price per MWh would be \$34/MWh. Thus, \$34/MWh should be

the CoS according to this calculation. If you charge 31% more than the CoS, then the final price should end up being \$44.50. However, the spreadsheet disagrees; If the CoS margin is set to 31%, in the spreadsheet, then the computed cost per MWh jumps 41% to \$48/MWh.

The person who made this calculation has a rationale for why a margin of 31% should make it 41% more expensive, but his rationale is simply wrong. Ultimately, his claim rests on the assumption that making less profit than one had projected is a loss, and this is untrue. Losses come from spending more money than you earn, not from earning less money than you projected. Losses can never exceed the amount of money you spent.

I learned of these errors last Wednesday. Kevin Nordt and Dave Churchman had arranged a workshop for me to help me quantitatively understand the PUD's risks so that I could write up my own Rate 18 proposal. This workshop was held by the two analysts responsible for the bulk of the risk analysis document. While I was able to get the information I needed to finish my proposal, I couldn't help but notice these issues. Under normal circumstances, I would just try to get them resolved directly with PUD staff first. However, the Commission's planned vote on Rate 17 next meeting means that we don't have time for that, and the Commission needs to be aware of the issues immediately.

The Commission should not approve Rate 17 under the false premise that it represents the cost of service. If the Commission wishes to charge \$80/MWh to EI customers, that is their prerogative. However, they will need to describe it as a rate specified by the Cost of Service plus 138%.

I have tried to keep this email as brief as I can, so I have not gone into too much detail on the errors themselves. If anyone wishes to know more, please let me know. I would be happy to meet with you to discuss the issues or to explain them more by email.

- Jonathan Toomim

This is for things such as lodging, meals, fuel, car rental, equipment rental, hardware store sales, etc. In any given year, that amount is over \$20,000. I also have a huge support team of local contractors and have spent over \$100,000 on them so far this past year as well. The total amount I have spent in your community this past year is \$250,000 and I'm just 1 miner with 2 buildings. In addition to my expenses paid to the local community, I also donate hundreds of dollars each year to the local volunteer fire department to help those that have been burned out of their houses get back on their feet. This is the Bitcoin economy directly benefitting those that work and live in Grant County.

One of my landlords is the Paul Lauzier Foundation. We have a long-term lease at this building and we don't even have that much power there. The Paul Lauzier Foundation does a lot of non-profit work within Grant County. Every dollar I spend there goes directly back to the community in some form or another. There are parks in the county named for Paul Lauzier as you probably already know, and he has also set up a scholarship foundation and a charitable foundation. The primary source of the funds for those foundations is from rent income from various properties within Grant County.

You are probably all aware of the importance of affordable, renewable electricity to a Bitcoin mining operation. Even a 1 cent increase in power rates will have a strong negative effect on the mining community. I know you have almost entirely thrown out the idea of a "grandfather" clause because of legal reasons, however there must be a better way to manage the influx of future power demand. Rather than punishing those that have already invested in your communities and have upstanding relationships with those in the community, there should be a solution to manage the future power demand without getting rid of the industry that is already present. By phasing in the power rate increases, it only delays miners from leaving your area. Eventually they will all be gone as soon as the power rate is too much and landlords in your area will be sitting on empty buildings.

I'm here to support the local community as much as it supports my operation as well. If I can't afford to pay my power bill and rent, then I will have to leave my buildings. That will have a detrimental effect to the county if all miners leave their buildings, and the landlords don't have income to support themselves. At a time when one the largest employers in the county is laying off workers and threatening to leave within a year, I would think you would want the support of local Bitcoin miners helping within the community. If other Bitcoin miners don't support their community like I do then maybe that's where the main problem is. If the PUD is considering investing in large infrastructure improvements and also raising rates, then there will be no industry to help pay for that investment in the future. The smartest comment I heard from a commissioner was to put Bitcoin miners where the power is. That seems to be a win-win for everyone involved. The PUD would not need to install a large infrastructure, and the additional rate increase may be doable for new miners.

Thank you for reading, I'm not in need of a response, just hoping to get my thoughts to you.

Thank you,

Mark Vargas
Managing Member
Mission Valley Mining, LLC
missionvalleymining@gmail.com
408-640-4802 cell/text

commissioners@grantpud.org

August 7, 2018

Commissioners of Grant County PUD,

I wanted to introduce myself to you and let you know my thoughts on the presentation regarding evolving industries that I attended on Tuesday July 31st. My name is Mark Vargas and I am majority managing member of Mission Valley Mining, LLC. I am based in Silicon Valley with mining operations in 3 states. I have 2 locations in Moses Lake with a focus on Bitcoin mining as well as renting out space for others to mine as a colocation service. My partners and myself are very responsible people, we have full time jobs that support us and our families, and we have decided to take on the proposition of bitcoin mining as a side project. I started Bitcoin mining because I was fascinated with the technology and its ability to offer a decentralized solution to currency.

I found it interesting that the presentation had such a negative slant towards Bitcoin and Bitcoin miners. I applaud the commission member who made a comment to detract from the dark web statement in the presentation. I don't know how to access the dark web personally, and I wouldn't have any interest in it in the first place. I use Bitcoin for such things as to pay rent, purchase equipment, exchange for US dollars to pay for ongoing expenses, and soon to be able to buy Starbucks coffee through a new venture with Starbucks and Microsoft that will allow conversion of "Bitcoin into US dollars, which can be used at Starbucks", which was just announced a few days ago. There are many positive news items regarding Bitcoin that could have been included in the presentation such as adoption rate, market share in relation to other crypto currencies, businesses accepting bitcoin, and new Bitcoin core developments.

The presentation included a quotation from Warren Buffett, who is the harshest critic of Bitcoin, and has called the cryptocurrency "probably rat poison squared". Charlie Munger who is Warren Buffet's business partner has said "Bitcoin is like trading freshly harvested baby brains". The presenter couldn't have found a more Bitcoin negative person to include in his presentation. The presentation stated that China banned bitcoin, the truth is that the State Administration of China has banned mining in their country, however they have also banned free speech and access to outside media, and at one time the country subsidized mining, which is why it was centralized there. Those largest miners from China have been looking for alternative locations and the largest companies opened locations in Canada, Iceland, and as of yesterday, Texas, at an abandoned Alcoa aluminum manufacturing plant that closed down 4 years ago.

I'm sure that there are other miners who, like me, have long-term leases with other building owners. Those owners live and work in your communities and spend their income from commercial building rentals back into the community. I have personally met with dozens of amazing people in your community with whom I have contracted for various tasks such as electrical upgrades, ventilation upgrades, framing, etc. I have also met with many building owners who welcome me as a business partner. I've had to turn down future building requests because of the unknown future electric rate issues.


There was talk about the amount of workers necessary for a Bitcoin mining operation, however there was no discussion about how Bitcoin miners provide a real economic stimulus to the areas in which they are mining. In rent and electricity alone, I spend well over \$125,000 every year. Every month that I travel to maintain my buildings and visit Moses Lake, outside money is injected into your community.

Exhibit 8

Declaration of Kevin Nordt

MEMORANDUM

February 24, 2019

TO: Kevin Nordt, General Manager 
VIA: Dave Churchman, Chief Customer Officer
FROM: Louis Szablya, Large Customer Care
SUBJECT: Rate 17

Purpose: Pending change in Rate Class. Information only, no Commission action requested.

Discussion:

The purpose of this memo is to remind the Commission that customers within the cryptocurrency mining/blockchain technology industry will be migrating to the new Rate Schedule No. 17 on April 1st (or soon after in accordance with normal billing processes). Per the Board's direction upon adoption of Resolution 8891 last August, the Board established a new rate class, Class 17, included all cryptocurrency mining/blockchain technologies customers in the new class in the first instance, and set pricing for the 2019 Grant Rate Year (4/1/2019 – 3/31/2020).

Below is a brief overview of the process that led to the creation of Rate 17 and inclusion of the cryptocurrency mining/blockchain industry in the Rate Class:

- In late summer and early fall of 2017, the PUD received an extremely high number of service requests, with the vast majority from the cryptocurrency/blockchain industry. Due to the high volumes, the PUD temporarily stopped processing service requests in October of 2017. Shortly thereafter staff provided the Commission with an overview of anticipated customer load growth and the high level of service requests. During Q4, 2017 and Q1, 2018 staff discussed the issue with the Commission and took input from stakeholders in public session.
- In Q2 of 2018, staff provided the Commission a "white paper" on the proposed Evolving Industry Rate class which described the rationale for classifying cryptocurrency mining/blockchain technologies as an Evolving Industry. This information was provided as background for the May Evolving Industry public workshop. Shortly thereafter the Commission adopted Resolution 8885 directing staff to create an Evolving Industry Rate Schedule and affirmed inclusion of the cryptocurrency mining/blockchain technology industry in the Evolving Industry Rate Class.

- From June to August, staff provided stakeholders and the Commission additional detail and rationale on the Evolving Industry Rate Class and provided opportunities for stakeholders to discuss Rate 17 implementation. These discussions culminated in the Commission adopting Rate Schedule No. 17, which was memorialized through the approval of Resolution 8891 and a reiteration that cryptocurrency mining / blockchain technologies customers would be included in this class starting on April 1, 2019.
- Rate Schedule No. 17 provides that the District will conduct an annual review of the Evolving Industry Class. The review will determine if it is appropriate to move new industries into the rate class, or remove industries currently in the rate class from the class, based on criteria set out in Rate Schedule No. 17 (i.e., concentration risk, business risk and regulatory risk). It is expected that Staff will undertake the first annual review in the summer or fall of 2019, and that the results of that analysis will be presented to Senior Management for review, and then to the Commission for any appropriate action. Any changes to the composition of the Evolving Industries Rate Class resulting from the 2019 review would be made effective before April 1, 2020.

Recommendation:

This is being presented to the Commission for information purposes only.

Legal Review:

Provided by email.

Exhibit 9

Declaration of Kevin Nordt

RESOLUTION NO. 8891

A RESOLUTION ESTABLISHING RATE SCHEDULE NO. 17

Recitals


1. Pursuant to RCW 54.16.040, Grant PUD is authorized to regulate and control the use, distribution, rates, service, charges, and price of electric energy;
2. The Commission directed staff to create an Evolving Industry rate schedule with the adoption of Resolution No. 8885 on May 8, 2018; and
3. The General Manager and Grant PUD staff recommend establishing Grant PUD Rate Schedule No. 17 as set forth in Exhibit A.

NOW, THEREFORE, BE IT RESOLVED by the Commission of Public Utility District No. 2 of Grant County, Washington that effective August 28, 2018, Rate Schedule No. 17 is hereby established as set forth in Exhibit A hereto.

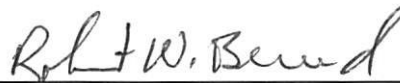
PASSED AND APPROVED by the Commission of Public Utility District No. 2 of Grant County, Washington, this 28th day of August, 2018.



President

ATTEST: 

Secretary



Vice President



Commissioner



Commissioner



RATE SCHEDULE No. 17
EVOLVING INDUSTRY SERVICE

Rates shown on the Rate Schedules are set by the Grant PUD Commission and are subject to change at the discretion of the Commission.

AVAILABLE: To retail customers whose energy load activity and / or industry meets the requirements of the Evolving Industry definition, as detailed below:

No less than annually, Grant PUD will review the Evolving Industry Class to determine if it is appropriate for customer's classes to move into or out of the Class. To fall within the Evolving Industry Class an industry must have concentration risk (defined below) and at least one of the two other criteria below.

1. Regulatory Risk – Risk of detrimental changes to regulation with the potential to render the industry inviable within a foreseeable time horizon.
2. Business Risk – Potential for cessation or significant reduction of service due to a concentration of business risk, in an evolving or unproven industry, in the value of the customer's primary output.
3. Concentration Risk – Potential for significant load concentration within Grant PUD's service territory resulting in a meaningful aggregate impact and corresponding future risk to Grant's revenue stream. Evaluation would begin to occur when industry concentration of existing and service request queue customer loads exceeds 5% of Grant PUD's total load.

MONTHLY BILLING RATES: Customer's monthly billing will consist of the following charges:

- 17-A:** For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

EFFECTIVE: With meter readings on and after *April 1, 2019*, usage will be prorated to the new rates based on number of days after March 31, 2019.

| | |
|-----------------|-------------------|
| Basic Charge: | \$5.00 per day |
| Energy Charge: | \$0.05448 per kWh |
| Minimum Charge: | \$5.00 per day |

EFFECTIVE: With meter readings on and after *April 1, 2020*, usage will be prorated to the new rates based on number of days after March 31, 2020.

| | |
|-----------------|-------------------|
| Basic Charge: | \$7.50 per day |
| Energy Charge: | \$0.08165 per kWh |
| Minimum Charge: | \$7.50 per day |

EFFECTIVE: With meter readings on and after *April 1, 2021*, usage will be prorated to the new rates based on number of days after March 31, 2021.

| | |
|-----------------|-------------------|
| Basic Charge: | \$10.00 per day |
| Energy Charge: | \$0.12209 per kWh |
| Minimum Charge: | \$10.00 per day |

EXHIBIT A - Resolution No. 8891

17-B: For retail customers with service of 200KW or greater Billing Demand.

EFFECTIVE: With meter readings on and after *April 1, 2019*, usage will be prorated to the new rates based on number of days after March 31, 2019.

| | |
|-----------------|---|
| Basic Charge: | \$500.00 per month |
| Energy Charge: | \$0.02219 per kWh |
| Demand Charge: | \$8.00 per kW of Billing Period |
| Minimum Charge: | The Minimum shall be computed as Demand Charge times 75% of the Customer's Maximum Billing Demand during the most recent 12 month period. |

EFFECTIVE: With meter readings on and after *April 1, 2020*, usage will be prorated to the new rates based on number of days after March 31, 2020.

| | |
|-----------------|---|
| Basic Charge: | \$750.00 per month |
| Energy Charge: | \$0.02465 per kWh |
| Demand Charge: | \$19.00 per kW of Billing Period |
| Minimum Charge: | The Minimum shall be computed as Demand Charge times 75% of the Customer's Maximum Billing Demand during the most recent 12 month period. |

EFFECTIVE: With meter readings on and after *April 1, 2021*, usage will be prorated to the new rates based on number of days after March 31, 2021.

| | |
|-----------------|---|
| Basic Charge: | \$1,000.00 per month |
| Energy Charge: | \$0.03518 per kWh |
| Demand Charge: | \$30.00 per kW of Billing Period |
| Minimum Charge: | The Minimum shall be computed as Demand Charge times 75% of the Customer's Maximum Billing Demand during the most recent 12 month period. |

BILLING DEMAND: The Billing Demand under this schedule shall be the larger of the following demand factors:

- a. The contract demand, if any, or;
- b. The highest 15-minute demand during the month as determined by demand meter, adjusted up to 95 percent power factor.

TAX ADJUSTMENT: The amounts of any tax levied by any city or town, in accordance with RCW 54.28.070 of the Laws of the State of Washington, will be added to the above charges.

SERVICE: Service under this Schedule is subject to the terms and conditions in the District's Customer Service Policies, as the same may be amended from time to time.

EVOLVING INDUSTRY RATE CLASS EXIT CRITERIA: No less than annually, a team composed of Grant PUD staff will review the EI Rate Class to determine if it is appropriate for a customer's industry to

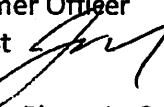
EXHIBIT A - Resolution No. 8891

move into, or out of the EI Rate Class. The team will be composed of representatives from Large Customer Care, Customer Solutions, Engineering, Rates, and Finance/Accounting. To fall within the requirements of the EI Rate Class, an industry must have Concentration Risk and at least one of the other two criteria above. To make this determination staff will evaluate the following:

- **Regulatory Risk** - Based on pending State or Federal legislation, review of current potential for regulatory rulings from State or Federal agencies, feedback from investment banks.
- **Business Risk** - Based on trends in the price volatility of the industry's primary product over the previous 12 months, financial strength of market participants, and viability and competitiveness of industry. Staff will review the industry based in part upon Porter's Five Forces analysis which is used to assess competitive intensity and industry profitability. These five factors include: 1) Threat of new entrants, 2) Threat of substitutes, 3) Bargaining power of customers, 4) Bargaining power of suppliers, and 5) Industry Rivalry.
- **Concentration Risk** – Staff recommends basing this factor upon a concentration threshold of 5% of Grant PUD's load including existing customers as well as customers in the service request queue. Input from credit agencies will be considered when determining any future changes to concentration risk.

M E M O R A N D U M

August 10, 2018

TO: Kevin Nordt, General Manager
VIA: Dave Churchman, Chief Customer Officer
FROM: Jeremy Nolan, Financial Analyst 
Subject: Evolving Industry Rate Schedule Phase-In Options

I. Background

On July 31, 2018, the Grant PUD Commission hosted a Workshop the proposed Rate Schedule 17, Evolving Industry Service that had been submitted to meet the requirements of Resolution 8885 directing the creation of a new customer class for Evolving Industry (EI) customers. Following the Workshop, Staff recommended a multi-year phase in approach to move Evolving Industry customers from their current rate schedules to the proposed Rate Schedule 17.

II. Discussion

Attached to this Memo are four (4) draft Rate Schedule 17 proposals. The four proposals are:

- A. 3 Year Straight Line – moves from current rates to the proposed rates in 3 equal increments over three years.
- B. 4 Year Straight Line – moves from current rates to the proposed rates in 4 equal increments over four years.
- C. 3 Year Graduated Increase – moves from current rates to the proposed rates in 3 increments of 15%, 35%, and 50% of the difference in the beginning and proposed rates over three years.
- D. 4 Year Graduated Increase – moves from current rates to the proposed rates in 4 increments of 15%, 25%, 30%, and 30% of the difference in the beginning and proposed rates over four years.

The year by year steps for the four proposals are shown in the two tables below with no expected customer growth.

For Rate Schedule 17-A, the calculations were completed with a customer profile that currently averages 5,000 kWh of energy consumption per month and no expected change in average customer size.

For Rate Schedule 17-B, the calculations were completed with a customer profile that currently has a Billing Demand of 2 MW and a Load Factor of 92.5% and no expected change in average customer size.

Rate Schedule 17-A: For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

| April 1, 2019 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Basic Charge: | \$5.00 per day | \$4.00 per day | \$5.00 per day | \$4.00 per day |
| Energy Charge: | \$0.07071 / kWh | \$0.08919 / kWh | \$0.05448 / kWh | \$0.05601 / kWh |
| All in \$/kWh Rate: | \$0.10112 / kWh | \$0.07094 / kWh | \$0.08490 / kWh | \$0.08034 / kWh |
| | | | | |
| April 1, 2020 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$7.50 per day | \$6.00 per day | \$7.50 per day | \$6.00 per day |
| Energy Charge: | \$0.09640 / kWh | \$0.08393 / kWh | \$0.08165 / kWh | \$0.07508 / kWh |
| All in \$/kWh Rate: | \$0.14202 / kWh | \$0.12043 / kWh | \$0.12728 / kWh | \$0.11158 / kWh |
| | | | | |
| April 1, 2021 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$10.00 per day | \$8.00 per day | \$10.00 per day | \$8.00 per day |
| Energy Charge: | \$0.12209 / kWh | \$0.10301 / kWh | \$0.12209 / kWh | \$0.09859 / kWh |
| All in \$/kWh Rate: | \$0.18293 / kWh | \$0.15168 / kWh | \$0.18293 / kWh | \$0.14725 / kWh |
| | | | | |
| April 1, 2022 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | No Additional | \$10.00 per day | No Additional | \$10.00 per day |
| Energy Charge: | Change | \$0.12209 / kWh | Change | \$0.12209 / kWh |
| All in \$/kWh Rate: | Scheduled | \$0.18293 / kWh | Scheduled | \$0.18293 / kWh |

Rate Schedule 17-B: For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

| April 1, 2019 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Basic Charge: | \$500 per month | \$400 per month | \$500 per month | \$400 per month |
| Energy Charge: | \$0.02612 / kWh | \$0.02463 / kWh | \$0.02219 / kWh | \$0.02222 / kWh |
| Demand Charge: | \$12.00 / kW | \$10.00 / kW | \$8.00 / kW | \$8.00 / kW |
| All in \$/kWh Rate: | \$0.04427 / kWh | \$0.03974 / kWh | \$0.03441 / kWh | \$0.03436 / kWh |
| | | | | |
| April 1, 2020 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$750 per month | \$600 per month | \$750 per month | \$600 per month |
| Energy Charge: | \$0.03065 / kWh | \$0.02765 / kWh | \$0.02465 / kWh | \$0.02672 / kWh |
| Demand Charge: | \$21.00 / kW | \$17.00 / kW | \$19.00 / kW | \$14.00 / kW |
| All in \$/kWh Rate: | \$0.06230 / kWh | \$0.05327 / kWh | \$0.05334 / kWh | \$0.04790 / kWh |
| | | | | |
| April 1, 2021 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$1,000 per month | \$800 per month | \$1,000 per month | \$800 per month |
| Energy Charge: | \$0.03518 / kWh | \$0.03067 / kWh | \$0.03518 / kWh | \$0.03095 / kWh |
| Demand Charge: | \$30.00 / kW | \$24.00 / kW | \$30.00 / kW | \$21.00 / kW |
| All in \$/kWh Rate: | \$0.08034 / kWh | \$0.06681 / kWh | \$0.08034 / kWh | \$0.06412 / kWh |
| | | | | |
| April 1, 2022 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | No Additional | \$1,000 per month | No Additional | \$1,000 per month |
| Energy Charge: | Change | \$0.03518 / kWh | Change | \$0.03518 / kWh |
| Demand Charge: | Scheduled | \$30.00 / kW | Scheduled | \$30.00 / kW |
| All in \$/kWh Rate: | | \$0.08034 / kWh | | \$0.08034 / kWh |

The year by year steps for the four proposals are shown in the two tables below.

For Rate Schedule 17-A, the calculations were completed with a customer profile that currently averages 5,000 kWh of energy consumption per month and a customer profile that uses 20,000 kWhs per month of energy consumption once the Evolving Industry Rate Schedule has been adopted and that customer chooses to stay active and move toward a larger size that will more fully utilize their installed infrastructure.

For Rate Schedule 17-B, the calculations were completed with a customer profile that currently has a Billing Demand of 2 MW and a Load Factor of 92.5% and a customer profile that uses 5 MW of Billing Demand with a Load Factor of 92.5% once the Evolving Industry Rate Schedule has been adopted and that customer chooses to stay active and move toward a larger size that will more fully utilize their installed infrastructure.

Rate Schedule 17-A: For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

| April 1, 2019 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Basic Charge: | \$5.00 per day | \$4.00 per day | \$5.00 per day | \$4.00 per day |
| Energy Charge: | \$0.07071 / kWh | \$0.06485 / kWh | \$0.05448 / kWh | \$0.05601 / kWh |
| All in \$/kWh Rate: | \$0.07831 / kWh | \$0.07094 / kWh | \$0.06209 / kWh | \$0.06209 / kWh |
| | | | | |
| April 1, 2020 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$7.50 per day | \$6.00 per day | \$7.50 per day | \$6.00 per day |
| Energy Charge: | \$0.09640 / kWh | \$0.08393 / kWh | \$0.08165 / kWh | \$0.07508 / kWh |
| All in \$/kWh Rate: | \$0.10781 / kWh | \$0.09306 / kWh | \$0.09306 / kWh | \$0.08421 / kWh |
| | | | | |
| April 1, 2021 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$10.00 per day | \$8.00 per day | \$10.00 per day | \$8.00 per day |
| Energy Charge: | \$0.12209 / kWh | \$0.10301 / kWh | \$0.12209 / kWh | \$0.09859 / kWh |
| All in \$/kWh Rate: | \$0.13730 / kWh | \$0.11518 / kWh | \$0.13730 / kWh | \$0.11075 / kWh |
| | | | | |
| April 1, 2022 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | No Additional | \$10.00 per day | No Additional | \$10.00 per day |
| Energy Charge: | Change | \$0.12209 / kWh | Change | \$0.12209 / kWh |
| All in \$/kWh Rate: | Scheduled | \$0.13730 / kWh | Scheduled | \$0.13730 / kWh |

Rate Schedule 17-B: For retail customers that would otherwise be served as Residential, Rate Schedule 1, and other retail customers with service less than 200 KW Billing Demand.

| April 1, 2019 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Basic Charge: | \$500 per month | \$400 per month | \$500 per month | \$400 per month |
| Energy Charge: | \$0.02612 / kWh | \$0.02463 / kWh | \$0.02219 / kWh | \$0.02222 / kWh |
| Demand Charge: | \$12.00 / kW | \$10.00 / kW | \$8.00 / kW | \$8.00 / kW |
| All in \$/kWh Rate: | \$0.04404 / kWh | \$0.03956 / kWh | \$0.03418 / kWh | \$0.03418 / kWh |
| | | | | |

| April 1, 2020 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Basic Charge: | \$750 per month | \$600 per month | \$750 per month | \$600 per month |
| Energy Charge: | \$0.03065 / kWh | \$0.02765 / kWh | \$0.02465 / kWh | \$0.02672 / kWh |
| Demand Charge: | \$21.00 / kW | \$17.00 / kW | \$19.00 / kW | \$14.00 / kW |
| All in \$/kWh Rate: | \$0.06197 / kWh | \$0.05301 / kWh | \$0.05301 / kWh | \$0.04763 / kWh |
| | | | | |
| April 1, 2021 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | \$1,000 per month | \$800 per month | \$1,000 per month | \$800 per month |
| Energy Charge: | \$0.03518 / kWh | \$0.03067 / kWh | \$0.03518 / kWh | \$0.03095 / kWh |
| Demand Charge: | \$30.00 / kW | \$24.00 / kW | \$30.00 / kW | \$21.00 / kW |
| All in \$/kWh Rate: | \$0.07990 / kWh | \$0.06645 / kWh | \$0.07990 / kWh | \$0.06376 / kWh |
| | | | | |
| April 1, 2022 | 3 Year Straight | 4 Year Straight | 3 Year Graduated | 4 Year Graduated |
| Basic Charge: | <i>No Additional</i> | \$1,000 per month | <i>No Additional</i> | \$1,000 per month |
| Energy Charge: | <i>Change</i> | \$0.03518 / kWh | <i>Change</i> | \$0.03518 / kWh |
| Demand Charge: | <i>Scheduled</i> | \$30.00 / kW | <i>Scheduled</i> | \$30.00 / kW |
| All in \$/kWh Rate: | | \$0.07990 / kWh | | \$0.07990 / kWh |

III. Review / Recommendation

The four Phase-In options for Rate Schedule 17 are all proposed to become effective April 1, 2019, which will be simultaneous with the rate adjustment for all other retail rate schedules as well. The recommendation is to review the attached four proposals and move toward a single option in September that can be brought into the Commission with a Resolution for consideration. The recommendation is to move forward with the 3 Year Graduated Phase-In proposal.

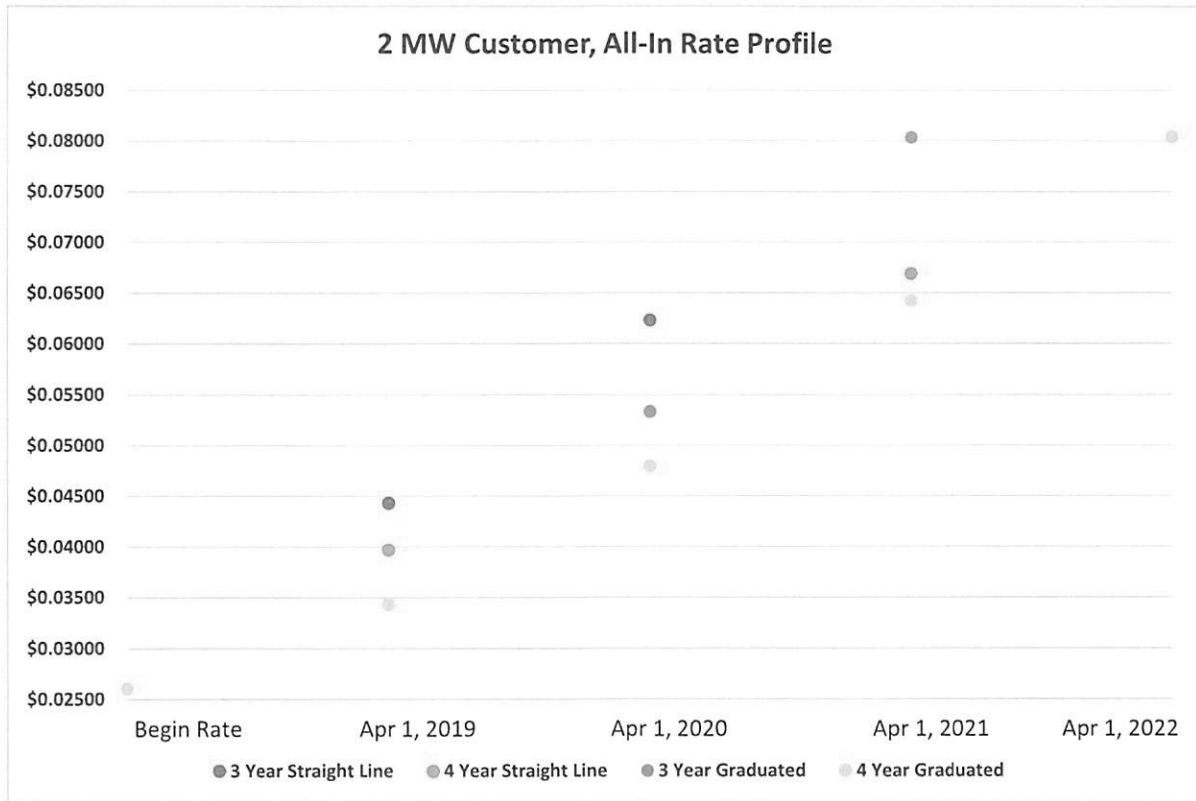


Exhibit 10

Declaration of Kevin Nordt

REGULAR MEETING
OF PUBLIC UTILITY DISTRICT NO. 2 OF GRANT COUNTY

January 22, 2019

The Commission of Public Utility District No. 2 of Grant County, Washington, convened at 9:00 a.m. at Grant PUD's Main Headquarters Building, 30 C Street SW, Ephrata, Washington with the following Commissioners present: Dale Walker, President; Tom Flint, Vice-President; Larry Schaapman, Secretary; Judy Wilson, Commissioner; and Nelson Cox, Commissioner.

A round table discussion was held regarding the following topics: a Nespelem Valley Electric Cooperative, Inc. request to purchase a portion of the Grant PUD electric system in the Grand Coulee / Electric City area; damage to District property policy update; request for recap of former Mid-C agreement and current status update; proposed changes to management benefit policies; and notice of Claim No. 18-0113.

Ron Roth, Safety Coordinator, reviewed the January 2019 Safety Report.

Ian Hunter, Dam Safety Engineering Manager / Emergency Action Plan (EAP) Manager, provided an overview of the Our Dam Safety Program (ODSP).

Jeremy Nolan, Lead Financial Analyst, provided a Retail Load and Revenue Report.

Jeff Grizzel, Interim Managing Director of Power Delivery, provided a Power Delivery performance report.

New employee Shaun Harrington, Data Analyst, was introduced to the Commission.

The Commission attended a lunch meeting with Grant County Commissioners.

The afternoon portion of the meeting was opened by reciting the Pledge of Allegiance.

Sharon Hastings, Ephrata, encouraged continued effort in marketing of the fiber buildout program.

Correspondence was noted by Commissioner Schaapman regarding irrigation customer connections.

Consent agenda motion was made by Mr. Flint and seconded by Mr. Cox to approve the following consent agenda items:

| | | | | |
|------------------------|--------|---------|--------|-----------------|
| Payment Numbers | 88728 | through | 89218 | \$9,198,662.31 |
| Payroll Direct Deposit | 135166 | through | 135831 | \$ 1,531,703.63 |

Meeting minutes of January 8, 2019.

After consideration, the above consent agenda items were approved by unanimous vote of the Commission.

Resolution No. 8908 relative to acquisition by condemnation of certain real property was presented to the Commission. Motion was made by Mr. Schaapman and seconded by Mr. Flint to approve Resolution No. 8908. After consideration, the motion passed by unanimous vote of the Commission.

RESOLUTION NO. 8908

A RESOLUTION AUTHORIZING THE ACQUISITION BY CONDEMNATION OF CERTAIN REAL
PROPERTY

Recitals

1. Public Utility District No. 2 of Grant County, Washington, a duly established municipal corporation of the State of Washington, hereinafter referred to as "Grant PUD", is authorized under RCW 54.16.020 and RCW 54.16.040 as amended, to condemn and acquire land and other property rights and privileges within and without its limits necessary for the purpose of furnishing itself, and its

inhabitants, and any other persons with electric current for all uses and to construct facilities for the distribution thereof;

2. Grant PUD is constructing safety-related improvements to Priest Rapids Dam to comply with requirements of the Federal Energy Regulatory Commission;
3. Grant PUD's Board of Commissioners has determined that it is necessary and advisable and in the best interests of Grant PUD and its electrical users that Grant PUD acquire through purchase or condemnation the real property described in Exhibit A, hereinafter referred to as the "Real Property";
4. Grant PUD has obtained an appraisal of the property sought to be acquired and has offered the property owner an amount which is equal to or greater than the appraised amount for said property rights; and
5. Grant PUD has been unable to purchase said property through negotiation.

NOW, THEREFORE, BE IT RESOLVED by the Commission of Public Utility District No. 2 of Grant County, Washington as follows:

Section 1. The public interest, welfare, convenience, and necessity require the acquisition by Grant PUD of the Real Property described in Exhibit A.

Section 2. That the object and use for which the Real Property is sought to be taken is a public object and a public use, to-wit: The operating of works, plants, and facilities for generating electric current and furnishing Grant PUD and the inhabitants of Grant PUD, and any persons including public and private corporations within or without the limit of Grant PUD, with electric current and energy and to construct facilities for the transmission and distribution thereof.

Section 3. That the name of the owner and occupant of the Real Property and of all persons having any interest therein, known to Grant PUD, is S. Martinez Livestock, Inc.

Section 4. Grant PUD's attorneys are hereby authorized and directed to institute forthwith and prosecute to a conclusion in the Superior Court of the State of Washington for Grant County, or such other court or courts as may be appropriate, an action or actions in the name of Grant PUD, for the acquisition by condemnation of the Real Property.

Section 5. That just compensation for the taking or damaging of said property shall be made from Grant PUD funds.

Motion was made by Mr. Schaapman and seconded by Mr. Flint authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 3 to Contract 430-06804 with AVANTech, Inc. increasing the not-to-exceed contract amount by \$1,500,000.00 for a new contract total of \$2,000,000.00 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 3. After consideration, the motion passed by unanimous vote of the Commission.

Motion was made by Mr. Schaapman and seconded by Mr. Flint authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Contract 430-08384 with Central Washington Management Group, LLC (CWMG) in an amount not to exceed \$3,970,000.00 and with a contract term of three years. After consideration, the motion passed by unanimous vote of the Commission.

Motion was made by Mr. Schaapman and seconded by Mr. Flint approving Employment Agreement with Kevin Nordt, General Manager/CEO. After consideration, the motion passed by unanimous vote of the Commission.

Motion was made by Mr. Schaapman and seconded by Mr. Cox that in light of the challenge to Rate Schedule 17 in Blocktree Properties, LLC, et al. v. Public Utility District No. 2 of Grant County, WA, et al., in the United States District Court for the Eastern District of Washington, case no. 2:18-cv-00390-RMP, District staff are instructed (a) to maintain an interest bearing account, separate from general District funds, identified for Rate Schedule 17 Deposits, and (b) to deposit into the account funds collected by the District for services provided by the District to all customers taking service under Rate Schedule 17 in an amount equal to the difference between the rates collected under Rate Schedule 17 and the rates that would have been collected from the same customers under Rate Schedule 7, which equals the amounts disputed by plaintiffs. These funds shall be available to the District to pay any refunds, with interest, in the event plaintiffs prevail in legal challenges to the adoption Rate Schedule 17. After the litigation is resolved, funds remaining in this account after refunds, if any, are paid may be

deposited into the District's general funds. After consideration, the motion passed by unanimous vote of the Commission.

The Commission recessed at 1:45 p.m.

The Commission resumed at 1:50 p.m.

Thomas Stredwick and Russ Brethower, Senior Managers Wholesale Fiber, provided a Wholesale Fiber Business Report.

The Commission recessed at 2:50 p.m.

The Commission resumed at 2:55 p.m.

An executive session was announced at 2:55 p.m. to last until 4:15 p.m. to discuss pending litigation with legal counsel present pursuant to RCW 42.30.110(1)(i) and performance of a public employee pursuant to RCW 42.30.110(1)(g). The executive session concluded at 4:15 p.m. and the regular session resumed.

An additional executive session was announced at 4:15 p.m. to last until 4:30 p.m. to discuss performance of a public employee pursuant to RCW 42.30.110(1)(g). The executive session concluded at 4:30 p.m. and the regular session resumed.

There being no further business to discuss, the Commission adjourned at 4:30 p.m. on January 22 and reconvened on Thursday, January 31 at 1:00 p.m. at the Main Headquarters Building, 30 C St. SW, Ephrata, Washington for the purpose of attending a Rates Workshop and any other business that may come before the Commission with the following Commissioners present: Larry Schaapman, Dale Walker, Tom Flint, Nelson Cox, and Judy Wilson. A copy of the notice of adjournment was posted near the door outside the Commission room.

There being no further business to discuss, the January 22 meeting officially adjourned at 3:00 p.m. on January 31, 2019.


Dale Walker, President

ATTEST:


Larry Schaapman, Secretary


Tom Flint, Vice President


Judy Wilson, Commissioner



Nelson Cox, Commissioner

Exhibit 11

Declaration of Kevin Nordt

| Company | Annual Electricity Payment | | |
|--------------------------|----------------------------|-----------------|---------------|
| | 2018 | 2019 | Difference |
| Cytline Technology LLC | \$ 355,345.80 | \$ 468,640.60 | \$ 113,294.80 |
| Wehash LLP | \$ 62,141.09 | \$ 81,621.98 | \$ 19,480.89 |
| Telco 214 US Inc | \$ 961,147.58 | \$ 1,254,406.64 | \$ 293,259.06 |
| Blocktree Properties LLC | \$ 91,282.80 | \$ 120,786.30 | \$ 29,503.49 |
| Corsair Investments LLC | \$ 205,362.84 | \$ 269,717.76 | \$ 64,354.92 |
| MIM LLC | \$ 359,199.65 | \$ 468,811.67 | \$ 109,612.02 |
| Vargas, Mark | \$ 55,003.46 | \$ 73,144.53 | \$ 18,141.07 |
| Total Payments | \$ 2,089,483.22 | \$ 2,737,129.48 | \$ 647,646.26 |

Notes: 1. Load information, both peak and consumption, were held constant over the 4 year period.

2. Year 2018 is based on Rate Schedule 7 current rate for the full year.

3. Year 2019 is based on the implementation of the first full year of Rate Schedule 17.

4. Any minimum charge was ignored for a customer shutting down in mid year.

| | | | | | | |
|---------|----------------|--------------|-----------------|------------|---------------|--------------------|
| | Effective Date | Basic Charge | Energy Charge 1 | Min Charge | Demand Charge | Above/Below 200 kW |
| | 4/1/2019 | \$ 5.00000 | \$ 0.05448 | \$ 5.00000 | \$ - | Below |
| Rate 17 | 4/1/2019 | \$ 500.00000 | \$ 0.02219 | \$ - | \$ 8.00000 | Above |

| | | | | | | |
|--------|----------------|--------------|-----------------|-----------------|---------------|--------------|
| Rate 7 | Effective Date | Basic Charge | Energy Charge 1 | Energy Charge 2 | Demand Charge | Min Charge |
| | 4/1/2018 | \$ 148.32000 | \$ 0.02100 | \$ 0.01875 | \$ 4.96000 | \$ 148.32000 |

The amounts listed below are based on financial dates, not usage.

| 2018 Metered Demand and Consumption of Major Customers | | | | | | | | | | | | | | Cust Total kWh | |
|--|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|--|
| Mo/Yr of Use | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 | | | |
| Cyteline Technology LLC | kWh | 1,096,200 | 1,209,840 | 1,123,120 | 1,037,840 | 1,159,400 | 987,400 | 1,132,920 | 1,006,700 | 1,060,000 | 1,262,300 | 1,201,240 | 13,332,620 | | |
| | Mtr kW | 633 | 626 | 621 | 599 | 588 | 545 | 572 | 576 | 637 | 650 | 651 | 19,349 | | |
| | %PF | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 3,598 | | |
| Wehash LLP | \$ Billed | \$ 29,577.75 | \$ 31,678.14 | \$ 30,041.92 | \$ 28,343.13 | \$ 30,417.63 | \$ 28,183.04 | \$ 26,790.67 | \$ 29,554.39 | \$ 29,000.18 | \$ 32,878.82 | \$ 31,670.35 | \$ 355,345.80 | | |
| | kWh | 1,099,800 | 1,230,600 | - | - | - | - | - | - | - | - | - | 2,330,400 | | |
| | Mtr kW | 1,821 | 1,793 | - | - | - | - | - | - | - | - | - | 3,614 | | |
| Telco 214 US Inc | \$ Billed | \$ 29,914.23 | \$ 32,226.86 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 62,141.09 | | |
| | kWh | 3,624,880 | 3,074,560 | 3,324,360 | 2,967,640 | 3,013,200 | 3,010,360 | 2,766,000 | 3,182,680 | 2,926,520 | 2,733,840 | 2,887,080 | 36,976,840 | | |
| | Mtr kW | 3,888 | 3,884 | 3,843 | 3,733 | 3,817 | 3,734 | 3,615 | 3,515 | 3,604 | 3,570 | 3,342 | 44,372 | | |
| Blocktree Properties LLC | \$ Billed | \$ 91,059.71 | \$ 80,792.00 | \$ 85,202.55 | \$ 77,997.02 | \$ 79,520.28 | \$ 88,190.33 | \$ 73,919.86 | \$ 81,241.38 | \$ 76,775.06 | \$ 72,869.08 | \$ 74,419.39 | \$ 961,147.58 | | |
| | kWh | 256,320 | 223,840 | 267,040 | 260,000 | 284,640 | 303,200 | 284,960 | 330,240 | 278,080 | 275,680 | 311,200 | 3,402,400 | | |
| | Mtr kW | 352 | 348 | 380 | 416 | 430 | 436 | 434 | 441 | 429 | 407 | 409 | 4,911 | | |
| Corsair Investments LLC | \$ Billed | \$ 6,814.33 | \$ 6,181.52 | \$ 7,151.83 | \$ 7,201.56 | \$ 7,728.64 | \$ 8,556.00 | \$ 8,078.22 | \$ 7,754.48 | \$ 7,601.67 | \$ 7,447.94 | \$ 8,126.64 | \$ 91,282.80 | | |
| | kWh | 538,800 | 476,400 | 546,900 | 635,400 | 704,100 | 715,200 | 768,000 | 656,700 | 693,000 | 656,700 | 666,300 | 7,757,700 | | |
| | Mtr kW | 796 | 932 | 919 | 968 | 1,018 | 1,011 | 1,034 | 996 | 974 | 974 | 974 | 11,447 | | |
| MIM LLC* | \$ Billed | \$ 14,312.47 | \$ 13,813.56 | \$ 15,074.43 | \$ 16,977.83 | \$ 18,512.97 | \$ 18,686.87 | \$ 17,704.57 | \$ 18,328.24 | \$ 18,086.11 | \$ 17,406.97 | \$ 17,566.97 | \$ 205,362.84 | | |
| | kWh | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 14,068,800 | | |
| | Mtr kW | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 18,605 | | |
| Vargas, Mark* | \$ Billed | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 29,933.30 | \$ 359,199.65 | | |
| | kWh | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 2,052,480 | | |
| | Mtr kW | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 2,700 | | |
| Total kWh | \$ Billed | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 4,583.62 | \$ 55,003.46 | | |
| | kWh | 7,959,440 | 7,558,680 | 6,604,860 | 6,244,320 | 6,504,780 | 6,907,220 | 6,184,020 | 6,563,260 | 6,301,040 | 6,271,960 | 6,409,260 | 79,921,240 | | |
| | Total \$ Billed | \$206,195 | \$199,209 | \$171,988 | \$165,036 | \$170,696 | \$178,133 | \$167,419 | \$169,936 | \$165,980 | \$165,120 | \$166,320 | \$2,089,483 | | |

*Monthly consumption assumed to be constant December 2018 amount

**January, February, & March are calculated with 2019 rates

***Minimum charges are ignored

The amounts listed below are based on financial dates, not usage.

| 2019 Metered Demand and Consumption of Major Customers | | | | | | | | | | | | | Cust Total kWh |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|--------------|--------------|-----------------|
| Mo/Yr of Use | Jan-19 | Feb-19 | Mar-19 | Apr-19 | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | |
| Cyline Technology LLC | | | | | | | | | | | | | |
| kWh | 1,096,200 | 1,209,840 | 1,123,120 | 1,037,840 | 1,159,400 | 1,055,660 | 987,400 | 1,132,920 | 1,060,700 | 1,060,000 | 1,262,300 | 1,201,240 | 13,332,620 |
| Mtr kW | 633 | 626 | 629 | 621 | 599 | 588 | 545 | 572 | 576 | 637 | 650 | 651 | 19,349 |
| %PF | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 3,598 |
| \$ Billed | \$ 39,117.48 | \$ 41,590.19 | \$ 39,649.39 | \$ 37,596.07 | \$ 39,963.25 | \$ 37,194.38 | \$ 35,498.25 | \$ 38,784.13 | \$ 36,018.83 | \$ 38,477.40 | \$ 43,104.36 | \$ 41,646.88 | \$ 468,640.60 |
| Wohash LLP | | | | | | | | | | | | | |
| kWh | 1,099,800 | 1,230,600 | | | | | | | | | | | 2,330,400 |
| Mtr kW | 1,821 | 1,793 | | | | | | | | | | | 3,614 |
| %PF | 100 | 100 | | | | | | | | | | | 200 |
| \$ Billed | \$ 39,472.56 | \$ 42,149.41 | \$ 3,324,360 | \$ 2,987,640 | \$ 3,013,200 | \$ 3,465,720 | \$ 3,010,360 | \$ 2,766,000 | \$ 3,182,680 | \$ 2,926,520 | \$ 2,733,840 | \$ 2,887,080 | \$ 81,621.98 |
| Telco 214 US Inc | | | | | | | | | | | | | |
| kWh | 3,624,880 | 3,074,560 | 3,324,360 | 3,843 | 3,013,200 | 3,465,720 | 3,010,360 | 2,766,000 | 3,182,680 | 2,926,520 | 2,733,840 | 2,887,080 | 36,976,840 |
| Mtr kW | 3,888 | 3,684 | 3,843 | 3,733 | 3,617 | 3,627 | 3,734 | 3,615 | 3,515 | 3,604 | 3,570 | 3,342 | 44,372 |
| %PF | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 2,397 |
| \$ Billed | \$ 117,841.85 | \$ 105,712.17 | \$ 110,814.59 | \$ 102,065.05 | \$ 104,155.07 | \$ 114,495.37 | \$ 103,596.29 | \$ 97,112.58 | \$ 105,566.39 | \$ 100,425.24 | \$ 95,876.71 | \$ 96,943.35 | \$ 1,254,406.64 |
| Blocktree Properties LLC | | | | | | | | | | | | | |
| kWh | 256,320 | 223,840 | 267,040 | 260,000 | 284,640 | 327,200 | 303,200 | 284,960 | 330,240 | 278,080 | 275,680 | 311,200 | 3,402,400 |
| Mtr kW | 352 | 348 | 380 | 416 | 430 | 436 | 430 | 434 | 441 | 429 | 407 | 409 | 4,911 |
| %PF | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,200 |
| \$ Billed | \$ 9,006.30 | \$ 8,247.17 | \$ 9,464.34 | \$ 9,601.24 | \$ 10,252.96 | \$ 11,244.73 | \$ 10,667.37 | \$ 10,292.06 | \$ 11,355.71 | \$ 10,101.00 | \$ 9,872.38 | \$ 10,881.05 | \$ 120,786.30 |
| Corsair Investments LLC | | | | | | | | | | | | | |
| kWh | 538,800 | 476,400 | 546,900 | 635,400 | 704,100 | 715,200 | 768,000 | 656,700 | 700,200 | 693,000 | 656,700 | 666,300 | 7,757,700 |
| Mtr kW | 796 | 932 | 919 | 968 | 1,018 | 1,011 | 849 | 1,034 | 996 | 974 | 974 | 974 | 11,447 |
| %PF | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,200 |
| \$ Billed | \$ 18,825.57 | \$ 18,523.32 | \$ 19,989.31 | \$ 22,346.73 | \$ 24,269.58 | \$ 24,460.69 | \$ 24,333.92 | \$ 23,347.37 | \$ 24,003.04 | \$ 23,670.47 | \$ 22,667.37 | \$ 23,080.40 | \$ 269,717.76 |
| MIM LLC* | | | | | | | | | | | | | |
| kWh | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 1,172,400 | 14,068,800 |
| Mtr kW | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 1,550 | 18,600 |
| %PF | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,200 |
| \$ Billed | \$ 39,070.56 | \$ 39,055.56 | \$ 39,070.56 | \$ 39,065.56 | \$ 39,070.56 | \$ 39,065.56 | \$ 39,070.56 | \$ 39,070.56 | \$ 39,065.56 | \$ 39,070.56 | \$ 39,065.56 | \$ 39,070.56 | \$ 468,811.67 |
| Vargas, Mark* | | | | | | | | | | | | | |
| kWh | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 171,040 | 2,052,480 |
| Mtr kW | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 225 | 2,700 |
| %PF | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 1,197 |
| \$ Billed | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 6,095.38 | \$ 73,144.53 |
| Total kWh | | | | | | | | | | | | | |
| | 7,959,440 | 7,558,680 | 6,604,860 | 6,244,320 | 6,504,780 | 6,907,220 | 6,412,400 | 6,184,020 | 6,563,260 | 6,301,040 | 6,271,960 | 6,409,260 | 79,921,240 |
| Total \$ Billed | \$269,430 | \$261,373 | \$225,084 | \$216,770 | \$223,807 | \$232,556 | \$219,264 | \$214,702 | \$222,105 | \$217,840 | \$216,682 | \$217,518 | \$2,737,129 |

*Monthly consumption assumed to be constant December 2018 amount

**January, February, & March are calculated with 2019 rates

***Minimum charges are ignored